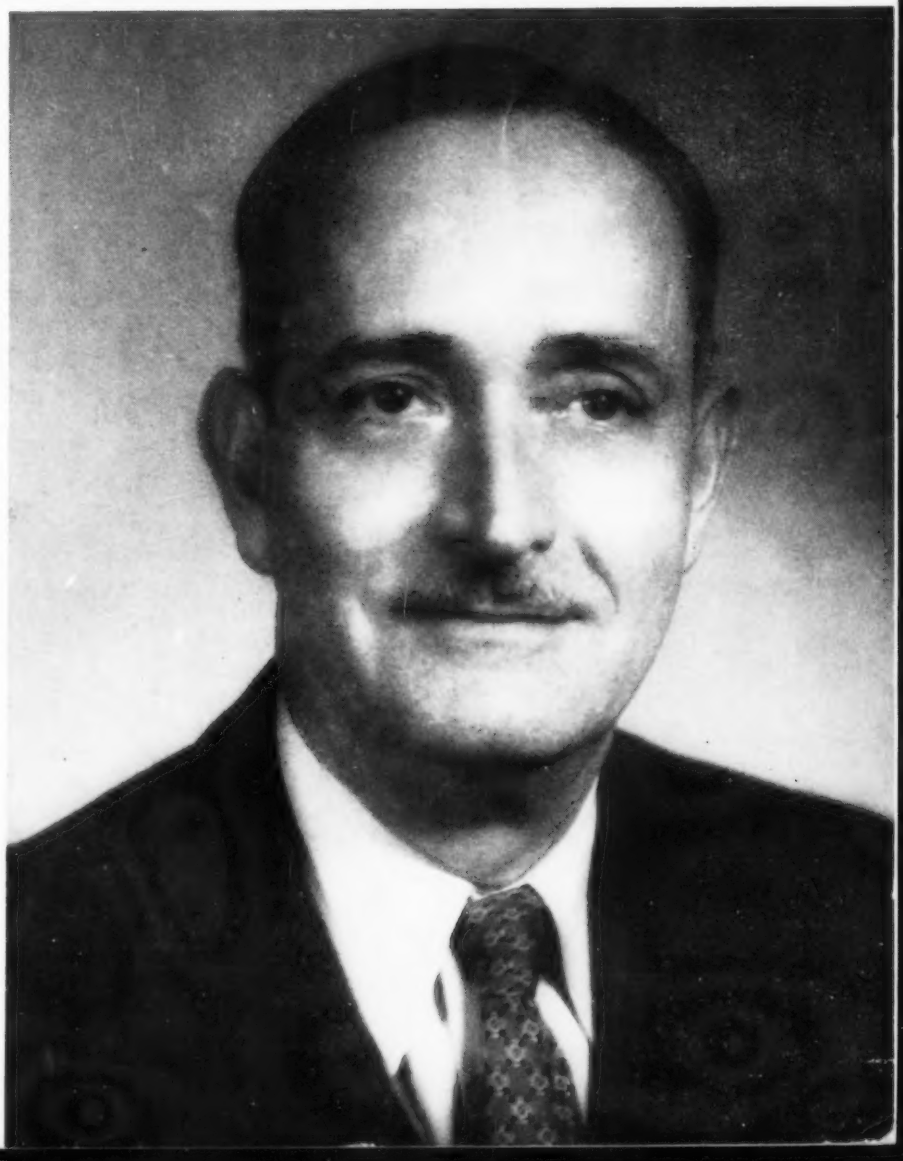
March, 1952

SOAP and Sanitary Chemicals

In this issue...



Cover photo . . . Searcy Ridge, head of Gateway Chemical Co., Kansas City, Mo., and president of the National Sanitary Supply Assn., holding its 29th annual trade show and convention at the Conrad Hilton Hotel, Chicago, March 23-26. Meeting program page 125.

Repackers! **Re-Sellers!** **Compounders!**

CHECK NYTRON'S PROPERTIES

TRADE-MARK REG. U. S. PAT. OFF.

...See How Much They Offer You!

No other wetting agent-detergent matches NYTRON's combination of properties! NYTRON alone—repacked by itself—is an outstanding cleaning product; when compounded with other cleaning ingredients, it greatly increases their effectiveness . . . and offers many advantages over ordinary detergents!

DETERGENCY

NYTRON is effective on an unusually wide variety of soils. It has excellent power to remove oil and grease from fabrics, surfaces, metal parts. It cleans efficiently in cold, as well as warm or hot water and retains its detergent action when used in either acid or alkaline mediums.

HARD WATER ACTION

NYTRON is effective even in water of unusual hardness. It is economical because increased quantities do not have to be added to compensate for water hardness. NYTRON prevents the formation of scum, grease rings, streaks, spots.

CHEMICAL STABILITY

NYTRON remains chemically stable in acid or alkaline solutions, over a wide range of temperatures and concentrations. It will not "salt out" in concentrations of many acids, alkalies, or metallic salts.

FASTER WETTING

NYTRON used alone, or with other materials, speeds wetting and penetration. Even extremely low concentrations sharply lower surface tension.

FOAMING

NYTRON will foam in any normal concentration of acid or alkali, in distilled water or sea water, in ice cold or boiling water.

QUICK, THOROUGH RINSING

NYTRON rinses quickly and thoroughly in cool or even cold water, does not leave an insoluble deposit.

IMPROVES PERFORMANCE OF...

Soap, phosphates, silicates, acids, caustic soda, or soda ash.

RAPID SOLUBILITY

NYTRON goes into solution almost instantly in hot or cold water.

A SOLVAY PRODUCT

Mail Coupon — Get a Free Sample!

SOLVAY SALES DIVISION, Allied Chemical & Dye Corporation
40 Rector Street, New York 6, N. Y.

I want to see for myself how NYTRON improves performance. Please send me a free sample plus non-technical information and specific technical data on this Synthetic Organic Detergent with the exclusive combination of properties.

Name_____

Title_____

Company_____

Address_____

City_____ Zone_____ State_____ ase-9

THE LEADER FOR OVER TWENTY-FOUR YEARS

FULSHINE jobbers know a good thing when they SELL it

AP FULSHINE ALKALI PROOF* CLEANER

Now Better than ever!

Glemite added

for that EXTRA Polished Shine!

What a Shine! What a Cleaner!

There are 17 solid reasons why THERE IS ONLY ONE FULSHINE!

ONLY FULD MAKES FULSHINE

You, too, can have **FULSHINE AP CLEANER** under your private label . . . and benefit from its constant repeat sales. Many hundreds of jobbers and distributors the country over profit . . . every day . . . from **FULSHINE** . . . the shining bright alkali-proof neutral and wax-free cleaner with the safe chemical reserve that prevents freeing of any harmful alkali. No rinsing! Dries to a polished shine!

Once you introduce your customers to Fulshine, it becomes a major part of their cleaning program. Because Fulshine's brilliant performance proves its economy of use in day in day out maintenance.

FULSHINE jobbers know a good thing when they sell it. And they have been cashing in . . . for over 24 years!

Satisfy yourself. Write today for samples, complete sales information, the famous Fulshine Sales-Clinching Test Kit, and prices.

*AP is a Registered Trade Mark of Fuld Bros., Inc.

Ask about the New Fuld patented Fulshine END-USE Economy TEST KIT . . . for your Fulshine customers.

FULD BROTHERS, INCORPORATED

MANUFACTURING CHEMISTS

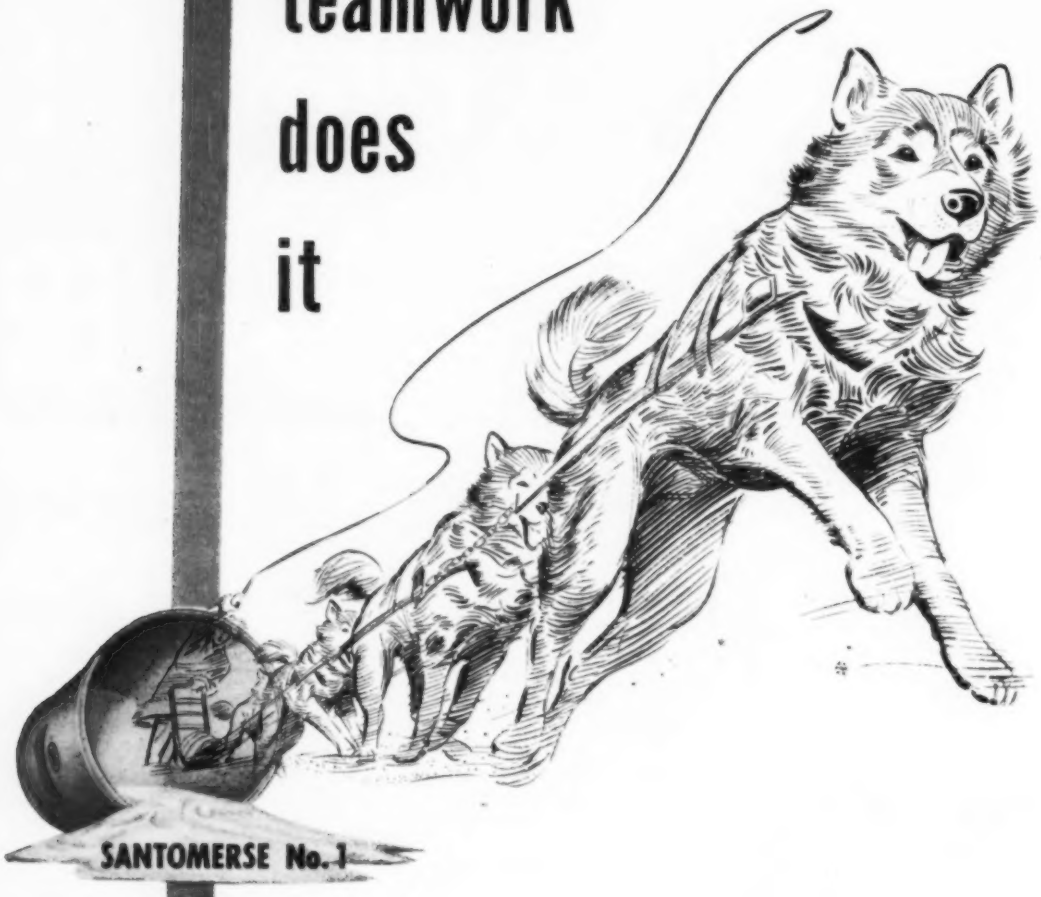
Warehouses in Principal Cities

CONSISTENT QUALITY FOR OVER A QUARTER CENTURY

702-710 S. WOLFE ST., BALTIMORE 31, MD.

West Coast Plant: Los Angeles, Calif.

teamwork does it



1. Wetting Out
2. Dispersing
3. Emulsifying
4. Penetrating
5. Cleaning

If you are formulating a cleaning compound, you need Santomerse No. 1!

This modern, all-purpose detergent and wetting agent is highly favored wherever fast, thorough cleaning is required. It combines—actively and effectively—these 5 major functions: (1) Wetting Out, (2) Dispersing, (3) Emulsifying, (4) Penetrating, (5) Cleaning . . . No one feature is overdeveloped at the expense of the others—all are active, all pull together.

Let Santomerse No. 1 put teamwork in your cleaner! It is available in flake, granular and powder form. MONSANTO CHEMICAL COMPANY, Phosphate Division, 1700 South Second Street, St. Louis 4, Missouri.

DISTRICT SALES OFFICES: Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Los Angeles, New York, Philadelphia, Portland, Ore., San Francisco, Seattle. In Canada, Monsanto Canada Limited, Montreal.

Santomerse: Reg. U. S. Pat. Off.

SANTOMERSE No.1

MONSANTO
CHEMICALS — PLASTICS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

SOAP and Sanitary Chemicals

Volume XXVIII, No. 3 March, 1952

CONTENTS

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WHITEY MOPZUM SAYS:—

DIRTY FLOORS

Mean DOLLARS For You !

See me in Chicago and I'll show you what to do . . .

Yes—your customers' DIRTY FLOORS will mean plenty of dollars for you—when you sell the complete WHITE line of quality floor cleaning equipment!

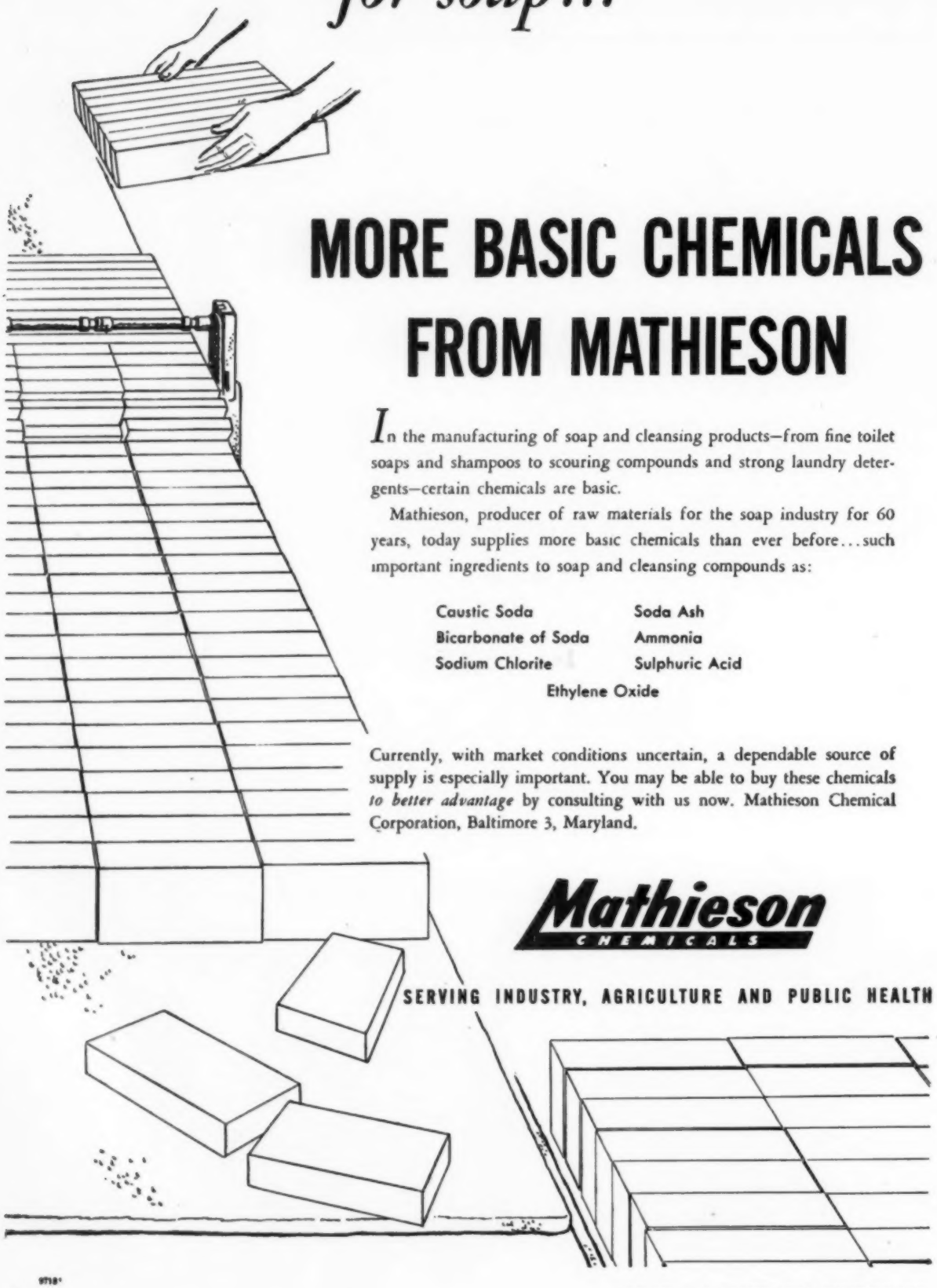
No matter *what* the floor . . . how large or small . . . you have the *right* equipment, designed for the job, in the WHITE line, priced right, too—with a good profit for you.

Stop in at the NSSA show—booth 144—see the WHITE line. You'll see why it's the "clean-up" champ in the floor sanitation field year after year!

WHITE MOP WRINGER CO., Fultonville, N.Y.

The name YOUR customers look for...

for soap...



MORE BASIC CHEMICALS FROM MATHIESON

In the manufacturing of soap and cleansing products—from fine toilet soaps and shampoos to scouring compounds and strong laundry detergents—certain chemicals are basic.

Mathieson, producer of raw materials for the soap industry for 60 years, today supplies more basic chemicals than ever before... such important ingredients to soap and cleansing compounds as:

Caustic Soda	Soda Ash
Bicarbonate of Soda	Ammonia
Sodium Chlorite	Sulphuric Acid

Ethylene Oxide

Currently, with market conditions uncertain, a dependable source of supply is especially important. You may be able to buy these chemicals *to better advantage* by consulting with us now. Mathieson Chemical Corporation, Baltimore 3, Maryland.

Mathieson
CHEMICALS

SERVING INDUSTRY, AGRICULTURE AND PUBLIC HEALTH

cleans,
lathers, rinses
FASTER in hard water
than ordinary cocoanut oil
soaps do in soft water

Hysan's

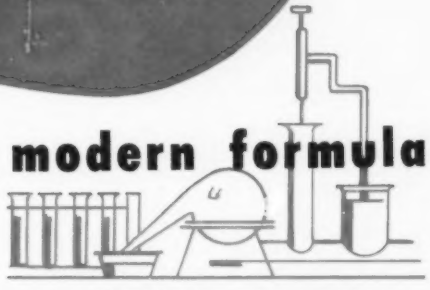
SPECIFY... 40 plus

LIQUID HAND SOAP

Take harsh, "horny handed" liquid soap out of washrooms. It's a morale and trade killer. Replace it with 40 PLUS and bring those washrooms up to date. Its profuse, free-rinsing lather . . *quickly* lifts out even deep, imbedded grime—yet leaves hands lotion smooth. That's because 40 PLUS is as fine as any facial soap. Fact is, thousands use it on face—and body—with beneficial results.

25th ANNIVERSARY YEAR!

new, modern formula



As its name implies, 40 PLUS is a concentrate of 40% solids . . containing cocoanut oil soap PLUS *New* synthetic detergents that combine the newest and best features of a hand soap and a cosmetic soap in one and the same product. Dilutes to a clear, brilliant ready-for-use soap, even in hard water. Soft or distilled water *not* required.

new deodorant property

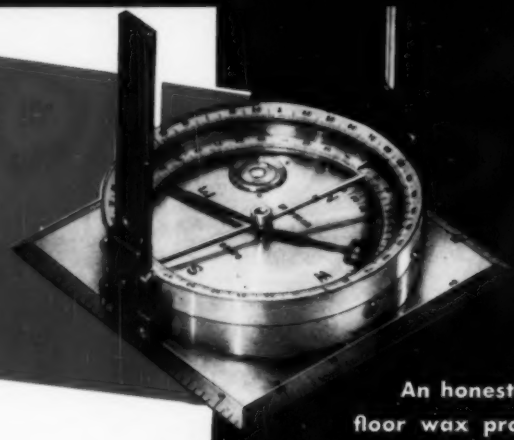
Safely removes body or occupational odors from hands. LEAVES NO AFTER SMELL.

Send for generous
FREE TRIAL SAMPLE

Hysan PRODUCTS COMPANY · 932 W. 38th Place · Chicago

A GUIDE

TO WAX PRODUCTS PURCHASING FOR PRIVATE BRAND RESALE



An honest appraisal of floor wax products as we see it is offered to guide wax buyers who want the best quality money can buy...

SELF POLISHING WAXES

Candy's Supreme (standard)
Candy's DeLuxe
Bright Beauty (standard)
Candy's No. 640
Candy's Supreme Special WR
CAND-DOX #CS
CAND-DOX #BB

Seven floor waxes that *are* all-around top quality for any given traffic condition. Each imparts the finest protection and beauty to floors for which they are best suited.

Bright Beauty FLOOR CLEANER

An outstanding material for removing even the heaviest wax film and dirt.... Brings neglected floors "back to normal." The *right* cleaning agent to insure the most efficient floor maintenance.

Bright Beauty CREAM FURNITURE POLISH

A cream furniture polish that spreads easily, polishes without excessive effort and imparts a deep impressive lustre. Too, it permits *repeated repolishing* with a dry cloth saving reapplication time and again; truly a very economical polish of very highest quality.

Bright Beauty PASTE WAX

A paste wax that is properly blended and refined from excellent quality solids and solvents that produce the best drying time and thorough evaporation. A wax that is easy to handle, having "creamy" consistency and stability throughout its stocking and usage period.

Bright Beauty LIQUID (spirit) PREPARED WAXES

Complete line of spirit dissolved waxes that meet a wide variety of demands for durability, color and types of usages. Each its own "Dry Cleaner," they keep a surface waxed with a superb protective coating necessary to many difficult surfaces such as certain floors (where adaptable), bars, wallpaper, etc.

Bright Beauty GLASS POLISH & CLEANER and SILVER POLISH

As a Glass Cleaner (pink color) it applies evenly with little effort, wipes off easily with negligible "powdering" and produces an undeniable "feel" of cleanness to glass that is actually true in fact. Different in color only as Silver polish, it imparts a highly desirable lustre to all silver *without* abrasion and can even correct the abuses of scratchy, "quick-polish" inferior products.

Bright Beauty DANCE FLOOR WAX

Basic advantages are freedom from "balling up," thus does not gather dirt and impregnate the floor with hard spots difficult to remove...also is free from dusty effects. Adds the protective quality to expensive ballroom floors that means more "floor-years" to users everywhere.

Bright Beauty Heavy Duty PASTE CLEANER

Really *cleans* and *scours* more effectively and quicker than most scouring powders. Depending on application, it can clean to perfection even painted walls to provide a suitable repainting surface. 100% active, free from excessive abrasive quality, it frees almost every surface from all forms of foreign matter to perfection.

1. BEAUTY AND DURABILITY

should be considered together. Initial appearance is important, but for a waxed surface to remain beautiful it must be durable. Durability depends not only on resistance to the abrasion of traffic, but even more so on resistance to the collection of dirt and to discoloring traffic marks. Durability is really measured by how long the waxed surface maintains a nice appearance before the necessity of complete removal and re-waxing.

2. ANTI SLIP

qualities are necessary in a good wax as a matter of safety underfoot. This important quality does not necessarily require the sacrifice of beauty and protection which are the foremost original reasons for the use of a wax. Look for the proper balance—a wax film which is not excessively slippery yet which is not tacky and does not excessively collect dirt.

3. WATER RESISTANCE

is important, particularly when considering the possibility of wet traffic and the necessity for frequent damp mopping for the purpose of removing surface dirt. Overdoing this quality means greater difficulty in applying multiple coats of wax and may seriously increase the difficulty in removal when complete cleaning and re-waxing is necessary. Water resistance is important, but so is the quality of removability.

4. SOLID CONTENT

when expressed in percentage is not nearly as important as the *quality* of the solid content. When considering good quality, 12% of solids answers most needs for good planned maintenance programs. Two applications of 12% will give better results than one of 18%. However, the more concentrated material is useful for some programs of maintenance and particularly on "washed-out" floors, etc. Over-waxing should be avoided so that periodic complete removal will not be too difficult.

5. CARNAUBA WAX

is still the most important basic ingredient in our floor waxes. When refined and compounded with other important ingredients and "KNOW HOW," it aids materially in producing the most important features of a good floor wax...ALL AROUND QUALITY OF PERFORMANCE.

● ALL AVAILABLE FOR PRIVATE BRAND ONLY
We do not compete with our jobbers for consumer sales. We sell only to distributors, except for experimental accounts in Chicago essential to research.

Wax Specialists for over 60 years

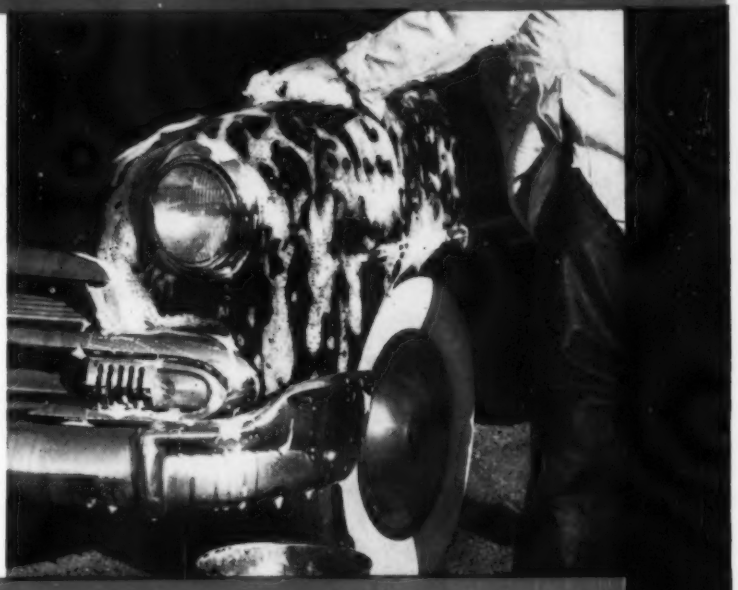
Candy & Company, Inc.

2515 W. 35th ST., CHICAGO

ULTRAWET Detergents Mean Quality

Washes faster
—more efficiently

ULTRAWET SK



Car wash is a good example of many important jobs that light-colored, free-flowing ULTRAWET SK beads can do. Other examples of direct uses are as a bubble bath, or as a detergent for nylons, rayons, and woolens. Here's a product that can be repackaged and sold, as is, without mixing with other ingredients. It is available in two densities—ULTRAWET SK Regular, and ULTRAWET SK High Density—to fit your particular requirements.

Beyond its physical form and appearance, ULTRAWET SK is an ideal product for merchandising because of its performance characteristics. It is instantly soluble in water—hot or cold, soft or hard—to form copious quantities of suds. Its free rinsing properties eliminate scum which causes streaking and dulls colors. Its low alkalinity assures the minimum effect on painted and waxed surfaces or on the most delicate fabrics.

Look into these advantages of ULTRAWET SK. Let us help you with your application problems. Write for complete details. The Atlantic Refining Company, Chemical Products Section, Dept. D-11, 260 So. Broad St., Philadelphia 1, Pa.

In the East
THE ATLANTIC REFINING COMPANY
Philadelphia • Pittsburgh • Providence
Charlotte • Chicago

On the West Coast
L. H. BUTCHER COMPANY
San Francisco • Los Angeles
Seattle • Salt Lake City • Portland

In Canada
NAUGATUCK CHEMICALS
Division of Dominion Rubber Co., Ltd.
Elmira • Montreal • Toronto • Windsor
Winnipeg • Saskatoon • Calgary

ATLANTIC
PETROLEUM
CHEMICALS

Please send complete details on ULTRAWET SK.

Name _____

Position _____

Company _____

Address _____

FOR *Quality* THAT BUILDS CUSTOMER SATISFACTION AND REPEAT PROFITS...

Feature

PURO

Deodorants

MORE ECONOMICAL... LONGER LASTING

MADE OF 100% PURE PARADICHLOROBENZENE FUSED WITH FINE LONG LASTING PERFUME OILS ON HUGE MODERN POWER PRESSES. ATTRACTIVELY PACKAGED!

OUTSTANDING SELLER FOR EVERY PUBLIC USE

PURO 4 OZ. DEODORANT BLOCKS—

Most popular size and shape, for urinals and general use. Made to U. S. Navy specification No. 51-D-23 (Int.). Attractive cellophane wrap and special tube containers protect from evaporation. Available in pleasant Surf, Lilac and Rose colors. Economical — long lasting.

EXTRA PROFITS FROM THIS EXCLUSIVE SPECIALTY

PURO SANA-BOLE DEODORANT—

Banishes odors at their source. Patented "Snap-on" wire hanger holds cake securely in bowl and practically out of sight. Delicate flower-like fragrance. Ideal for home, hotel and public toilets —a much larger market than urinal blocks. A sensational repeater, 4 oz. cake.

NEW HEAVY DUTY HANGER BLOCKS

PURO JUMBO DEODORANT BLOCKS—

By popular demand, now available in 8, 12, 16 and 24 oz. cakes which are effective longer over a larger area. The three larger blocks come in convenient hanger containers. Cellophane wrap prevents evaporation before use. In clean smelling Surf, Lilac and Rose.

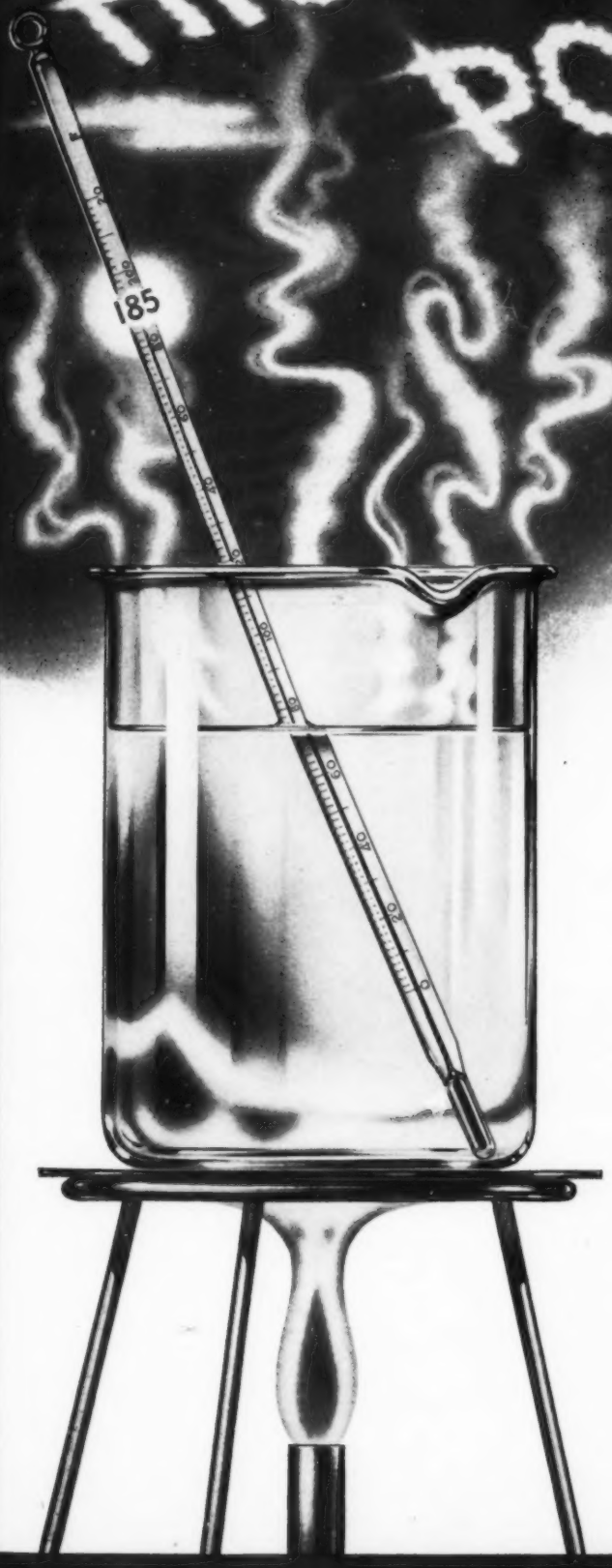
THE *Puro* COMPANY, Inc.

(Established 1929)

2801 LOCUST STREET **ST. LOUIS 3, MO.**

WRITE FOR SAMPLES AND JOBBER PRICES

HIGHER CLOUD POINT



FOR BETTER HOT BATH CLEANING WITH . . . . .

TRITON X-102

Newest *non-ionic* detergent offered by Rohm & Haas for formulation in metal cleaners has two important requirements for efficient metal cleaning:

a. A cloud point in the 185°-190°F range is right in line with high cleaning tank temperatures.

b. Detergent activity, like that of TRITON X-100, is outstanding for the following metals:

Aluminum	*Steels:*
Brass	*bonderized*
Copper	*furniture*
Iron	*passivated*
Zinc	*stainless*

Write for samples and detailed information. This material has been previously offered as Experimental Detergent 9X-102.

TRITON is a *trade-mark, Reg. U.S. Pat. Off. and in principal foreign countries.*

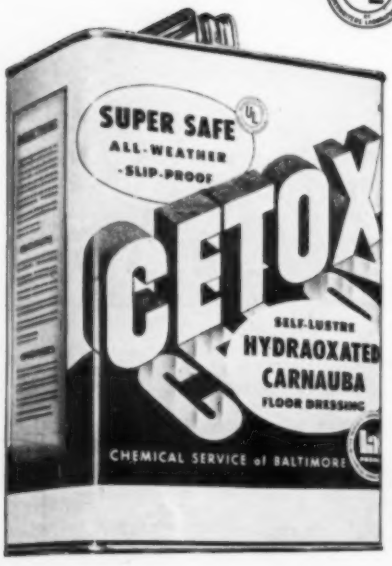
CHEMICALS FOR INDUSTRY

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

CETOX the Hydraoxated carnauba floor dressing that's extra safe all year 'round!



CETOX makes all floors super safe —especially throughout year's 30% inclement weather when the risk of slips and falls is greatest.

Super safe—even under wet shoes

Normally, water underfoot acts as a lubricant. CETOX is extra safe under spilled or tracked in water. You simply won't slip, because CETOX contains Carnauba with the slip hydraoxated out of it. No silicas, or abrasives added. *It's hydraoxated super safe!*

Beautiful and safe

Self lustre CETOX makes floors dazzling bright. It is a wet mop proof, tough wearing, dirt resisting, protective floor dressing that may readily be removed with the use of a mild detergent. In every way, CETOX is superior. For safety sake . . . put CETOX on your floors.

Listed by UNDERWRITERS' LABORATORIES, INC. as anti-slip floor treatment material.

Tested-approved by YORK RESEARCH CORPORATION for American Hotel Association.

Write for complete information and sample. Do it today!

Chemical Service of Baltimore

HOWARD & WEST STREETS • BALTIMORE 30, MARYLAND

MEMBER OF NATIONAL SAFETY COUNCIL.

FIRST FOR WHITENESS

. . . in any desired shade

. . . with any desired properties

the CALCOFLUOR* *whitening agents*

Choose from among four different *Calcofluor* whitening agents and get just the shade you want, the degree of bleach fastness you prefer, and the visible whiteness properties that make for repeat soap and detergent sales.

Whatever Calcofluor you select, you can be sure of its efficiency in absorbing ultraviolet light without absorbing any appreciable amount of visual light. Good leveling characteristics and excellent fastness to hypochlorite can be assured by the proper selection from the Calcofluors shown below:

	Hue of Laundered Fabric	Bleach Fastness	Effect on Color of Soap Product	Substantivity
CALCOFLUOR WHITE B	neutral blue	good	slight yellowing	cotton, viscose
CALCOFLUOR WHITE MR	slightly reddish blue	fair	whitens	cotton, viscose
CALCOFLUOR WHITE 4B	slightly greenish blue	excellent	no effect	cotton, viscose
CALCOFLUOR WHITE RW	neutral blue	fair	strong whitening	nylon, acetate, wool

Your Calco representative will be glad to supply full information and samples.

*Trade-mark

Calco®

AMERICAN Cyanamid COMPANY

CALCO CHEMICAL DIVISION, DYESTUFF DEPARTMENT

BOUND BROOK, NEW JERSEY

REPRESENTED IN CANADA BY: NORTH AMERICAN CYANAMID LIMITED, CALCO CHEMICAL DIVISION

MONTREAL—TORONTO

NEW YORK • CHICAGO • BOSTON • PHILADELPHIA • CHARLOTTE • PROVIDENCE

CAUSTIC POTASH
45% Liquid
Flake and Solid
CAUSTIC SODA
Liquid 50% Standard and Rayon Grades
Liquid 70-73% Standard Grade
Flake and Solid, 76% Na_2O
CRUDE SODIUM SESQUICARBONATE
NATURAL SODA ASH
Light and Dense
PHOSPHATED CAUSTIC SODA

ACID SODIUM PYROPHOSPHATE
Food and Technical Grades
CHLORINATED PHOSPHATE
DIPOTASSIUM PHOSPHATE
DISODIUM PHOSPHATE
MONOPOTASSIUM PHOSPHATE
MONOSODIUM PHOSPHATE
POTASSIUM PHOSPHATE LIQUOR
SODIUM TRIPOLYPHOSPHATE
TETRAPOTASSIUM PYROPHOSPHATE
TETRASODIUM PYROPHOSPHATE
TRIPOTASSIUM PHOSPHATE

Mixtures formulated to order containing phosphates, alkalis, detergents, etc.

Westvaco

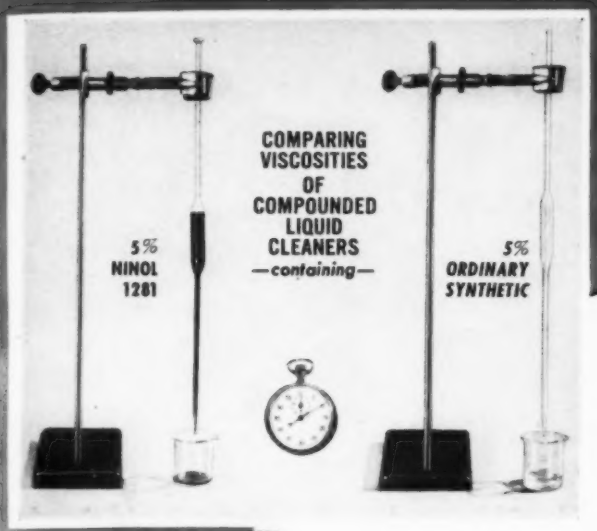
ALKALIS • PHOSPHATES

FOR EVERY TYPE OF SOAP AND DETERGENT

Our Technical Service Division stands ready to render very practical help in the most efficient handling and formulation of Westvaco Alkalis and Phosphates for any type of soap or detergent mixture. We have considerable data on the newer complex Potassium Phosphates which may be valuable to you in developing new products.

WESTVACO CHEMICAL DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION
GENERAL OFFICES • 161 EAST 42nd STREET, NEW YORK 17
CHICAGO, ILL. • CLEVELAND, OHIO • CINCINNATI, OHIO
ST. LOUIS, MO. • LOS ANGELES, CALIF. • NEWARK, CALIF.

fmc



for

HIGH VISCOSITY *in* LIQUID CLEANERS

use

NINOL 1281 *a nonionic detergent with high* THICKENING POWER

Increase the sales appeal of your liquid cleaner line by eliminating that thin, watery look. NINOL 1281 in your formulations will give good "body" both to *Synsoaps** and to all-synthetic liquid cleaners (such as dishwashing detergents, floor cleaners, shampoos, etc.).

Besides thickening action, NINOL 1281 also possesses excellent detergency, rinsibility and rust-inhibiting qualities that make it unique among the synthetics.

OTHER NINOL PRODUCTS FOR SPECIAL THICKENING JOBS

NINOL 2012A	A nonionic detergent with powerful thickening action for solutions of other synthetics.
NINOL 201	For thickening and clarifying liquid coconut soaps.
NINOL 128	A base for low-priced viscous nonionic bar glass cleaners.

**SYNSOAPS* = Soap + Synthetics*

SEND THIS COUPON TODAY!

NINOL LABORATORIES, DEPT. S
1719 S. CLINTON ST., CHICAGO 16, ILL.

Gentlemen:
Please send me, at once, full information about the use of

NINOL
☐ 1281 ☐ 2012A ☐ 201
☐ 128

in formulating liquid cleaners, together with a working sample.

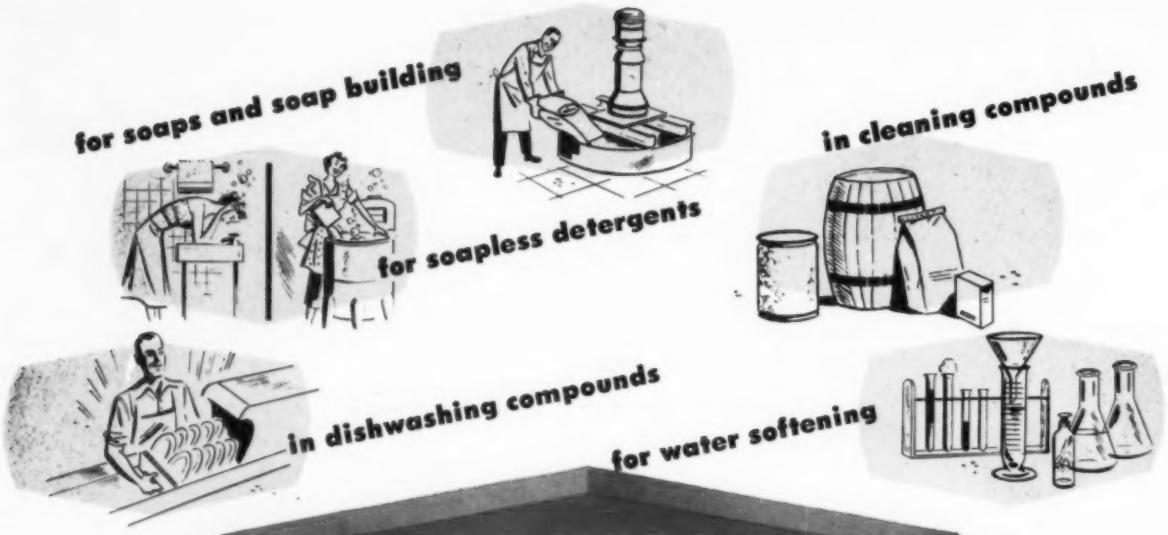
NAME _____
TITLE _____
COMPANY _____
STREET & No. _____
CITY _____
ZONE _____ STATE _____

NINOL Detergents — Emulsifiers

NINOL LABORATORIES

1719 S. CLINTON • CHICAGO 16 • PHONE CHESAPEAKE 3-9625

In Canada: Chemical Developments of Canada, Ltd., Toronto 17, Ontario



BLOCKSON
Sodium Phosphates

Blockson has made substantial plant additions in its endeavor to keep up with the increasing demand for its SODIUM TRIPOLYPHOSPHATE, TETRASODIUM PYROPHOSPHATE, TRISODIUM PHOSPHATE and for its SODIUM POLYPHOS which is the Blockson brand name for a water soluble, Glassy Sodium Phosphate with the desirable characteristics of Sodium Hexametaphosphate and Sodium Tetraphosphate.

BLOCKSON CHEMICAL COMPANY
JOLIET, ILLINOIS

Blockson Plant . . . Joliet, Ill.

- Sodium Tripolyphosphate
- Tetrasodium Pyrophosphate, Anhydrous
- Sodium Polyphos (Sodium Hexametaphosphate) (Sodium Tetraphosphate)
- Trisodium Phosphate, Crystalline
- Chlorinated Trisodium Phosphate
- Trisodium Phosphate, Monohydrate
- Disodium Phosphate, Anhydrous
- Disodium Phosphate, Crystalline
- Monosodium Phosphate, Anhydrous
- Monosodium Phosphate, Monohydrate
- Sodium Acid Pyrophosphate
- Sodium Silicofluoride
- Sodium Fluoride
- Hygrade Fertilizer

BLOCKSON

After Closing . . .

Kentucky Label Bill

A bill to require labeling of soaps, cleansers, detergents, floor waxes, scouring powders, disinfectants, and other sanitary chemicals with "the net weight, exact ingredients contained therein, and the name and address of the actual manufacturer," was introduced March 3 into the Kentucky State Legislature as House Bill #436 by Rep. Murphy. The bill states that no person shall offer for sale in any type or size of package—the labeling is not confined to so-called household size packages as in the Federal Gillette Bills—in Kentucky unless the package is marked "in letters and figures clearly legible" as indicated. Violation calls for fines of not less than fifty dollars nor more than two hundred dollars. This Kentucky house bill is the same as the McCann Bill passed by the state senate in 1951, but which was not considered by the house before adjournment.

Panama Ups Soap Duty

An increase in the import duty on certain soap flakes and detergents was effected recently by the Panamanian Tariff Commission by changing the import classification number of these items from 549 to 550. The change increased the import duty on soaps and detergents from 5 to 15 cents per gross kilogram (2.3 to 6.8 cents per pound). The reclassification was reported to have been made to include all laundry soaps and preparations under Import Classification No. 550.

Fat Import Bill to Senate

The senate bill which would repeal the section of the Defense Production Act permitting embargoes on imports of certain fats and oils was reported to the U. S. Senate early in March by the Senate Banking Committee. Passage of S.B. 2104 has been recommended by the committee. The bill repeals section 104 of the Defense Production Act, which directed the Secretary of Agriculture to embargo imports of fats and oils which might interfere with the price support program. Repeal of these provisions has been urged by the State Department.

Lever House Opening Set

Formal dedication of the New York headquarters of Lever Brothers Co., New York, at 390 Park Avenue, is slated to take place late in April. The new Lever building, a modern glass and brick structure, to be known as Lever House, will house executive offices, general offices and the "research kitchen". Many of the general office staff are already in the new building. The executive offices on the 21st floor are not as yet completed, nor is the test kitchen, which will be located on the first floor. This operation will be the last to move in. At present the research kitchen is located at U. S. Testing Co., Hoboken, N. J. Executive offices have been located at 505 Park Avenue, and the former general offices at 80 Varick Street have now been completely vacated. Since moving to New York from Cambridge, Mass., Lever's offices have been divided between 505 Park Avenue and 80 Varick Street, with the divisional sales office at 445 Park Avenue.

2300 at DCAT Dinner

Over 2300 members and guests attended the 26th annual dinner of the Drug, Chemical and Allied Trades Section of the New York Board of Trade, held at the Waldorf-Astoria Hotel, New York, Mar. 6. Theodore R. McKeldin, governor of Maryland, was the featured speaker. His subject was "What Is Our Goal?" Charles M. Macauley, head of Charles M. Macauley & Associates, and chairman of the DCAT, presided.

Wax Bid Calls for G.S.A. Materials Use

AN INVITATION to bid on government floor wax requirements opened March 13 by Federal Supply Services, General Services Administration, Washington, calls for the use of GSA surplus raw materials by manufacturers who may bid. The latest floor wax bid is listed as Inv. 3-G-8597-R-3-13-52. Suppliers of finished floor wax are required to make a delivered price using GSA materials. This invitation is interpreted in the industry as indicating that GSA is shutting down its Washington "experimental" floor wax plant and plans for outside manufacturers to use up supplies of waxes, emulsifying agents, and other materials now on hand. Chemical Specialties Manufacturers Association still insists that the plant be dismantled so that wax manufacture shall not be resumed at some future date.

New Pennsalt Cleaner

A new rust inhibiting organic type metal cleaner, "Pennsalt EC-51", was announced early this month by Pennsylvania Salt Manufacturing Co., Philadelphia. It is said to combine detergent action with rust protection. Said to be non-caustic, non-explosive and harmless to the hands, the new cleaner is claimed not to create toxic working conditions, according to the maker. It is manufactured at the company's Cornwells Heights, Pa., plant and is packaged in 50-gallon drums.

Geigy Names White

The appointment of C. L. White as regional manager of the southeast territory for the insecticide division of Geigy Co., New York, has just been announced. For the past three years, Mr. White has been southeast sales manager. His territory includes the region from Virginia to Florida and from Mississippi to Kentucky.

Maurice Fels Dies

Maurice Fels, 94, brother of the late Samuel S. Fels, head of Fels & Co., Philadelphia, died Mar. 8. He was a member of the bar, but did not practice law, devoting his time instead to educational activities which he pursued for more than 50 years in Philadelphia. He was born in Yanceyville, N. C., and was graduated from Johns Hopkins and Univ. of Pennsylvania Law School.

Fat Price Record Book

Davidson Commission Co., Board of Trade Building, Chicago 4, recently issued a booklet showing high and low price records for fats, oils and by-products. Included are tallows, greases, vegetable oils, soapstocks, fatty acids, etc. The records cover the period from 1941 through 1951 on a monthly basis.

Bashwiner Joins Hutchinson

Henry J. Bashwiner was recently appointed as a sales representative for D. W. Hutchinson & Co., New York, to cover the metropolitan territory. Mr. Bashwiner was formerly a New York City salesman for Magnus, Mabee & Reynard, Inc., New York.

New Detrex Department

Creation of a new products department and the appointment of John P. Emmett as its head have recently been announced by Detrex Corp., Detroit. Mr. Emmett handles the market research and sales development of all new products while they are in the pre-marketing phases. The company's program of market expansion, under Mr. Emmett, will involve the acquisition of raw materials in the manufacture of future product developments, as well as the expansion of plant facilities. New uses for existing products and problems of foreign trade will be part of the responsibilities of this department.

Mr. Emmett has been with Detrex for six years in the sales and service of the company's industrial cleaning equipment and chemicals. He has also served as assistant sales manager of the drycleaning division.

Koppers Names Ferris

James V. Ferris has been appointed superintendent of the Kearny, N. J., Tar Products Division plant of Koppers Co., Pittsburgh, it was announced March 7. He succeeds, J. E. Thistlethwaite, who has been transferred to the Chicago district sales office. Mr. Ferris is a native of England, who came to the United States in 1922. His first position was with Koppers at the Kearny plant. He received steady advancements there, and in 1940 he was made assistant superintendent.

Kissner Rejoins Lever

Election of Franklin H. Kissner as comptroller of Lever Brothers Co., New York, was announced Mar. 5,

F. H. KISSNER

by E. Lee Talman, administrative vice-president. Until recently vice-president of Burlington Mills Corp. of New York, Mr. Kissner was formerly associated with Lever Brothers as assistant treasurer. Before that he was in charge of finance of Textron, Inc., and previously served as deputy to Maj. Gen. William H. Draper, Jr., Chief of the Economic Division of the Control Council for Germany.

Dow Expands on Glycols

Expanded production of liquid polyethylene glycols (Polyglycols E200, E300, E400 and E600) and initial manufacture of solid polyethylene glycols has just been announced by Dow Chemical Co., Midland, Mich. The solid polyethylene glycols are available in average molecular weights of 1000 through 6000. Those of the "E" series serve as intermediates for surface active agents.

New Waterless Cleaner

Production of a new waterless hand cleaner under the trade name, "Basco", was begun in Nashville, Ark., recently by L. & H. Chemical Laboratories, a newly organized concern. The new cleaner, designed for use by mechanics, printers, etc., will be sold at retail, wholesale and through jobbers.

"Namico" Soap Booklets

National Milling & Chemical Co., Philadelphia, recently announced two catalogs listing "Namico" products. One is concerned with textile soaps and detergents, the other with products for laundering. They are available upon request.

New Germicidal Rinse

A new preparation containing "Roccal", quaternary ammonium germicidal agent, has been developed for use by barbers and beauticians for making germicidal hair rinse, it was announced Mar. 5 by P. Val Kolb, president of Sterwin Chemicals, Inc., New York. The preparation contains alkyl-dimethyl-benzyl-ammonium chloride as the germicidal agent. The rinse is colorless, stable and neutral. The new Sterwin preparation for germicidal hair rinse is available through trade supply houses in eight-ounce bottles. It is diluted in the proportion of one teaspoonful to one quart of water.

Wiggins Names Pitcher

The appointment of Fred R. Pitcher Co., Cincinnati merchandise brokers, to cover the southwestern Ohio territory for Wiggins Chemical Co., makers of "Wiggs Waterless Cleanser", was announced recently.

Wetalene Alters Claims

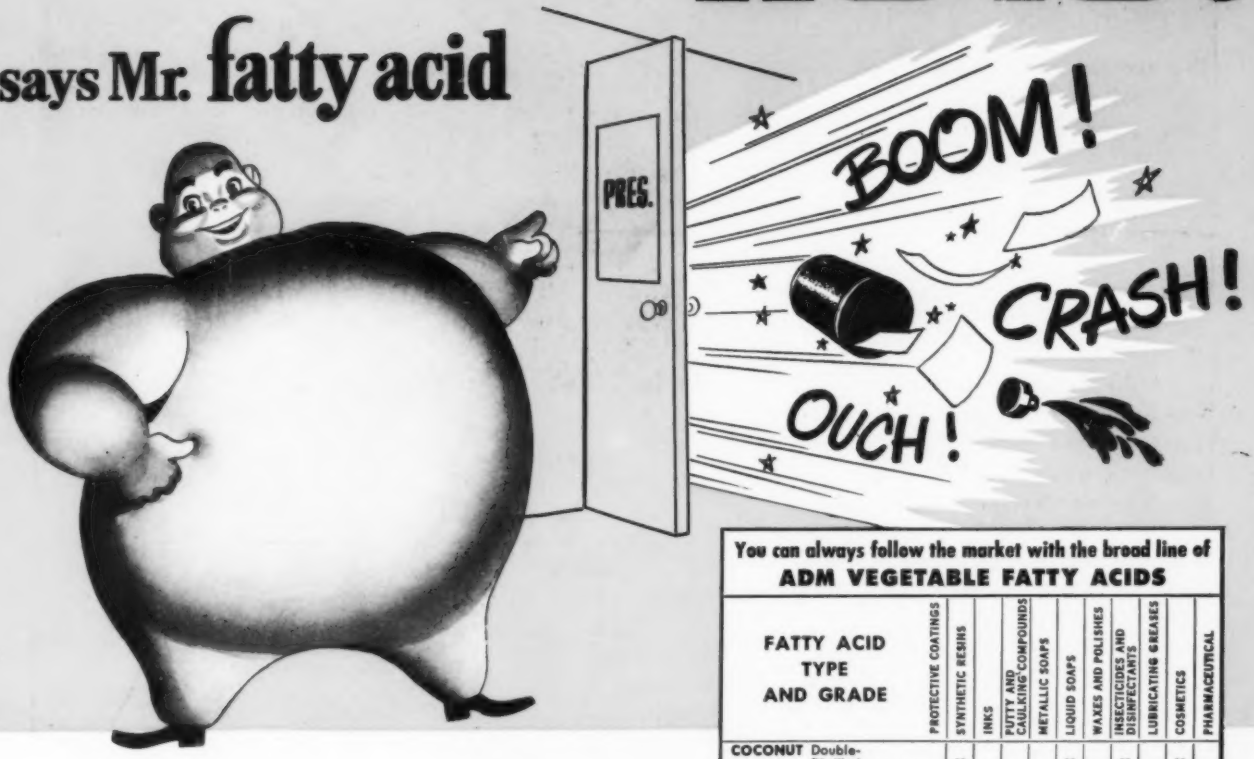
Wetalene Laboratories, Inc., Columbus, O., recently entered into a stipulation with the Federal Trade Commission whereby the company will stop representing that its detergent and water softener, designated "Wetalene," will reduce the use of soap by half or by any other amount not in accord with the facts.

The corporation stipulated that it will discontinue claims that the product removes tarnish from silverware unless it is disclosed that the silverware when placed in a "Wetalene" solution must come in contact with aluminum; that it will remove oil and grease from the surface of a concrete floor; and that it will make upholstery on furniture look like new or restore the original colors to soiled rugs.

When the boss suggests

lower soap costs...get RO-10!

...says Mr. fatty acid



People get pretty excited about rising soap costs. But there's really no need for bad temper. If you want to make a saving that *is* a saving, and yet keep on making soaps you can be proud of, just switch to ADM's RO-10 fatty acid!

RO-10 is the lowest priced straight soybean acid in the ADM family—but still one of the most respected. Produced by distillation, it is remarkably free from the impurities often found in split acids. And its consistent uniformity makes it a real favorite among production men.

Much lower in price than whole oils or comparable grades of fatty acids, RO-10 is your best choice for *good, economical* soaps. Mail the coupon today for sample of RO-10 and technical data.

SPECIFICATIONS

ACID NO.	195-205
SAPONIFICATION NO.	198-207
IODINE NO. (Wijs)	125 Minimum
COLOR (Gardner)	6 Maximum
WEIGHT PER GALLON	7.52 lbs.
TITER (°C)	23-29

You can always follow the market with the broad line of
ADM VEGETABLE FATTY ACIDS

FATTY ACID TYPE AND GRADE	PROTECTIVE COATINGS	SYNTHETIC RESINS	INKS	PUTTY AND CAULKING COMPOUNDS	METALLIC SOAPS	LIQUID SOAPS	WAXES AND POLISHES	INSECTICIDES AND DISINFECTANTS	LUBRICATING GREASES	COSMETICS	PHARMACEUTICAL
COCONUT Double-Distilled		X				X		X		X	
LINSEED											
Water White	X	X	X								
Regular	X	X	X	X	X	X		X			
SM-500	X	X	X	X	X	X		X			
SM-600	X	X	X	X	X	X		X			
Essential Unsaturated Free Fatty Acids											X
SOYA											
Water White	X	X	X								
Regular	X	X	X		X	X		X			
RO-4	X	X	X		X	X		X			
RO-10	X	X	X	X	X	X	X	X	X		
RO-11S	X	X	X		X			X			
MIXED VEGETABLE RO-8	X	X		X	X	X	X	X	X		
CORN-SOYA Double-Distilled				X		X	X	X	X		
CORN Double-Distilled				X		X	X	X	X		
COTTONSEED Double-Distilled		X			X		X	X	X		
CHINAWOOD	X	X	X								

ARCHER-DANIELS-MIDLAND COMPANY 4
600 Roanoke Building • Minneapolis 2, Minnesota

● Please send:

- ☐ Technical Bulletin 78, RO-10 Soya Fatty Acids
- ☐ Samples of RO-10 Soya Fatty Acids

*Name*_____

*Address*_____

*Company*_____

*City*_____ *Zone*____ *State*_____

Take the Scientific Shortcut with

ADM fatty ACIDS

paper sculpture by gorecka-egan

LONG ON EXPERIENCE

For over fifty years, Niagara has been supplying top-quality chemicals to industry. In that time it has achieved a position of leadership as a supplier of chemicals for soap-making and for sanitary chemicals.

NIALK®

Caustic Soda
Caustic Potash
Carbonate of Potash
Paradichlorobenzene

NIAGARA ALKALI COMPANY
60 East 42nd Street, New York 17, N. Y.

Liquid Chlorine • Caustic Potash • Carbonate of Potash • Paradichlorobenzene • Caustic Soda • TRICHLORethylene
NIAGATHAL® (Tetrachloro Phthalic Anhydride)

consider its odor....

The ultimate success of any product is highly influenced by its odor.

Although odor appreciation in such products as detergents, insecticides and other chemical specialties may be a subconscious influence—it is an effective influence on product acceptability.

Consider seriously the odor of your product from these stand points:

- EFFECTIVE MASKING.
- DESIRABLE ODOR LIFE AND VOLUME FOR THE PARTICULAR PRODUCT.
- SUITABILITY OF ODOR TYPE TO YOUR MARKET.

The advice and recommendations of the van Ameringen-Haebler staff of perfume chemists—experienced masters in odor engineering—can be of real help to you in determining the proper, effective perfuming of your product.

We solicit your inquiries.

van ameringen · haebler, inc.

521 WEST 57th STREET
NEW YORK 19, N. Y.

do you need a better **THICKENER?**

BUTTER CHURN OPERATED BY BICYCLE MECHANISM, 1889.
—BETTMANN ARCHIVE.

try

METHOCEL... *a superior synthetic gum!*

As a thickener, Methocel (Dow Methylcellulose) has many applications for soap manufacturers. For example, it is extremely valuable in the production of liquid soaps and shampoos. Methocel is highly efficient as a thickener . . . three or four per cent of high viscosity Methocel will thicken potassium soap solutions to the point where they will not pour. Moreover, it is uniform in its thickening ability, batch after batch.

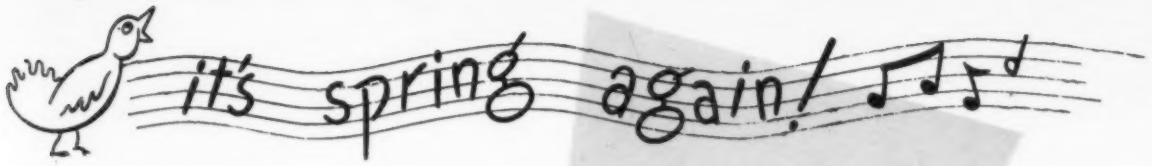
Methocel also improves sudsing and lathering properties. Used with synthetic wetting agents, it is an excellent suds builder. In addition to its uses as a thickener, Methocel also has useful applications as a film former and foaming stabilizer.

Bland, physiologically inert, water-soluble, clean and stable in viscosity, Methocel is a chemical of ever-growing usefulness. Perhaps your products or processes could be improved with Methocel in one of its many applications. A free, experimental sample of *powdered* Methocel will be sent you upon request. Simply write Dept. ME- 2A stating possible use or viscosity desired.

THE DOW CHEMICAL COMPANY

MIDLAND • MICHIGAN

DOW CHEMICALS
INDISPENSABLE TO INDUSTRY AND AGRICULTURE



FOR ANY TYPE

HOUSEHOLD CLEANING COMPOUND

RUG SHAMPOOS

WALL CLEANERS

FLOOR CLEANERS

PASTE DETERGENTS

DISHWASHING COMPOUNDS

PAINT CLEANERS

SCOURING COMPOUNDS

METAL CLEANERS

AUTOMOBILE WASHES

GLASS CLEANERS

REFRIGERATOR SANITIZERS

GENERAL PURPOSE
CLEANERS—HEAVY OR LIGHT DUTY

there's nothing like Nacconol*

AMERICA'S LEADING SYNTHETIC DETERGENT

General purpose or special purpose household cleaners are more efficient and economical when your formula includes an adequate amount of NACCONOL. It's the one best all-around value in synthetic detergents—with the time-proved combination of desirable properties at a low mass-production cost.

NACCONOL dissolves fast and completely—particularly at room temperatures or lower. It wets quickly; works well in hard water; emulsifies greasy-soil effectively; has high efficiency at low concentrations; keeps fats and soil in suspension; has fine foam stability; rinses freely; leaving a clean, scum-free surface.

Remember: NACCONOL was America's first mass-produced, low-priced synthetic detergent, is still "America's Leading Synthetic Detergent." You can't get a better money-value. Available in flake, granular, liquid or "dense bead" form—with dependable delivery based on completely integrated production from basic raw materials.

So write, wire or phone for prices, delivery and technical help on starting formulas for any type heavy-duty or light-duty cleaning compound.

NATIONAL ANILINE DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N.Y. • BOwling Green 9-2240

*Reg. U.S. Pat. Off.

Boston 14, Mass., 150 Causeway St.	CApitol 7-0490	Richmond 19, Va., 8 North Fifth St.	Richmond 2-1930
Providence 3, R.I., 13 Westminster St.	DExter 1-3008	Columbus, Ga., Columbus Interstate Bldg.	Columbus 3-1029
Philadelphia 6, Pa., 200-204 S. Front St.	LOmbard 3-6382	Greensboro, N.C., Jefferson Standard Bldg.	GReensboro 2-2518
San Francisco 5, Cal., 517 Howard St.	SUtter 1-7507	Chattanooga 2, Tenn., James Building	CHattanooga 6-6347
Portland 9, Ore., 730 West Burnside St.	Beacon 1853	Atlanta 2, Ga., 254 E. Paces Ferry Rd.	EXChange 3594
Chicago 54, Ill., The Merchandise Mart	SUperior 7-3387	New Orleans 18, La., 714 Carondelet Bldg.	Raymond 7228
Charlotte 1, N.C., 201-203 West First St.	CHarlotte 3-9221	Toronto 2, Canada, 137-143 Wellington St. W.	Empire 4-6495

D.Y QUALITY SINCE 1844

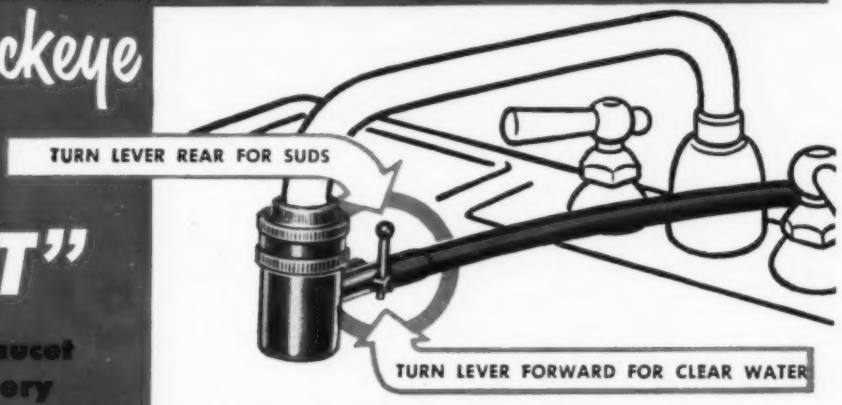
Here's How you can get more Restaurant Business...and make more money...PLUS a steady Volume of profitable repeat sales!

new **Buckeye**

"DYJET"

the kitchen faucet dispenser every restaurant wants

• note finger-tip control!



"DYJET" *measuring dispenser* Pat. Applied For

You can cash in on this item handsomely! Once you put a D-Y Buckeye *"DYJET"* in a customer's kitchen he'll *never* be without it! *"DYJET"* fits all standard faucets in a jiffy and, at the flip of the little control it gives oceans of rich, foamy, grease cutting suds—or crystal clear rinse water. No fuss, muss or bother. It's PRACTICAL, thoroughly tested in actual use, completely fool-proof!

Buckeye *"DYJET"* costs your customers nothing... it's included with Buckeye *"DYSH"*!

Yes, you offer *"DYJET"* with *"DYSH"*—the concentrated, super-soapless detergent for instant, longer-lasting suds! *"DYSH"* is the most popular product for hand dishwashing of Dishes, Pots and Pans, Glasses, China, Silverware and ALL Counterware. Get all the facts NOW!

CASH IN

on *"DYJET"* the measuring faucet dispenser with finger-tip control—plus Buckeye *"DYSH"* the latest development for instant suds. It means steady, repeat sales to every restaurant in your territory. Write today!

D.Y QUALITY SINCE 1844

The **DAVIES-YOUNG** Soap Co.
Dayton 1, Ohio

Mail Coupon NOW!

Clip Coupon...Mail at Once

FREE OFFER

SSC 3/52

THE DAVIES-YOUNG SOAP COMPANY
BOX 995, DAYTON 1, OHIO

Yes! We would like a free Demonstration of Buckeye *"DYJET"* and *"DYSH"*. Show us how we can cash in on this unusual deal.

Firm Name_____

Address_____

City_____ Zone____ State_____

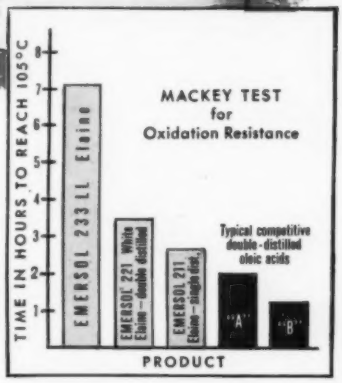
Guard Against this "Sales-Stopper"!

—with the exceptional stability of EMERY FATTY ACIDS!

The more stable your products . . . the better they sell. To be sure *your* products reach your customers as fresh, pure and appealing as the day they were made, insist on the superior rancidity-resistance possessed by Emersol Stearic and Oleic Acids. This characteristic, coupled with exceptional color and oxidation stability, is a direct result of exclusive Emery processes and guards the sales appeal of many of the finest products in America. Buy Emery and be sure your products are better, look better, sell better . . . far longer!

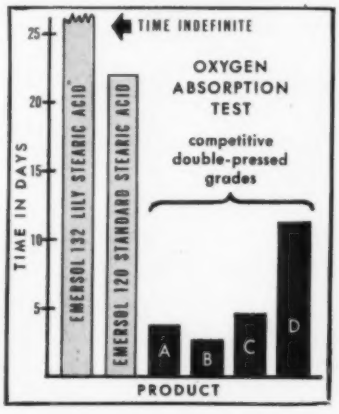
EMERSOL OLEIC STABILITY

The Mackey Test measures the auto-oxidation tendencies of oleic acid . . . giving proof of the superior oxidation stability of Emersol Elaines, as indicated by longer times.



EMERSOL STEARIC STABILITY

This oxygen absorption test, which measures the time required for the absorption of a standard quantity of oxygen in a closed system, clearly illustrates the amazing stability of Emersol Stearic Acids.



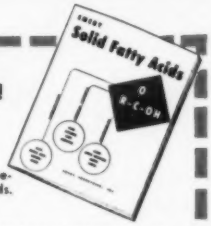
Emery Fatty Acids

EMERY INDUSTRIES, INC.
Carew Tower, Cincinnati 2, Ohio

EXPORT: 5035 RCA Bldg., New York 20, N. Y.
Branch Offices:
3002 Woolworth Bldg., New York, N. Y.
221 N. La Salle St., Chicago 1, Ill.
401 N. Broad St., Philadelphia 8, Pa.
420 Market St., San Francisco 11, Calif.
187 Perry St., Lowell, Mass.

Representatives:
Schibley & Ossmann, Inc., 33 Public Square, Cleveland 13, Ohio
Ecclestone Chemical Co., 2673 Guoin, Detroit 7, Michigan
Warehouse stocks also in St. Louis, Buffalo, Baltimore and Los Angeles

GET ALL THE FACTS ABOUT EMERY'S SOLID FATTY ACIDS!



Emery Industries, Inc.
Dept. S-3, Carew Tower,
Cincinnati 2, Ohio

Gentlemen: Please send me the comprehensive bulletin on Emery's Solid Fatty Acids.

Name.....
Title.....
Company.....
Address.....
City.....Zone.....State.....

"... helping to keep the business cycle on an even keel ..."

HARRY B. HIGGINS
President, Pittsburgh Plate Glass Company

"The employees of Pittsburgh Plate Glass Company since 1946, have purchased $9,488,510 in United States Savings Bonds through the Payroll Savings Plan. This accumulation of assets will be of inestimable value in helping to keep the business cycle on an even keel by maintaining purchasing power for the future."

Payroll Savings—the plan that protects—pays the employer *triple* benefits:

- it makes a good employee a better one—a serious saver with a definite plan for personal security.
- as enrollment on the plan goes to 60%, 70% employee participation, productivity increases, absenteeism decreases and accident records go down.
- and as Mr. Higgins points out, the systematic purchase of Defense Bonds through the Payroll Savings Plan is building a tremendous reserve of purchasing power.

Let's point up the third employer benefit with a few figures:

- On September 30, 1951, individuals held Series E Bonds totaling $34.6 Billion—more than $4.6 greater than on V-J Day.
- During the five calendar years (1946-1950) Defense Bonds sales provided:

—*Cash* to retire $3 Billion A-D Savings Bonds (maturing Series).

—*Cash* to meet $24 Billion redemptions of E, F and G Bonds.

—$6 Billion (after providing cash for the payments enumerated above) that the U.S. Treasury could use to pay off bank-held debt.

And the figures are getting better every day—between January 1, 1951 and November 1, 1951, 1,200,000 employed men and women joined the Payroll Savings Plan.

If the employee participation on your Payroll Savings Plan is less than 60%, phone, wire or write to Savings Bond Division, U.S. Treasury Department, Suite 700, Washington Building, Washington, D.C. Your State Director will be glad to show you how you can participate in the triple benefits of the Payroll Savings Plan.

The U.S. Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and

SOAP & SANITARY CHEMICALS

"One drum of EXP showed us we'd been wasting our time trying to make our own dishwashing detergent"

BUY IT FOR LESS

Than it would cost you to make it!

EXP

High-lathering Detergent for hand dishwashing

Available in 25-lb., 50-lb., 125-lb., and 325-lb. sizes.

If you formulate a dishwashing detergent, check your costs against the delivered price of EXP. Many have found it more economical to use EXP rather than to try to develop a detergent of comparable quality.

With EXP you have a proved product. It's the largest selling, high-lathering hand dishwashing detergent sold commercially. And it's available for your own label. You and your customers will like EXP's advantages:

1. Higher sudsing
2. Amazing grease-cutting action
3. Easy on the hands
4. Uniform quality always through laboratory control.

Millions of pounds of EXP are sold every year at a nice profit to dealers. Let it prove itself with a trial order. Use coupon for 125-lb. drum at the lower pound price of a 325-lb. order.

Also available in 5-lb. packages under the brand label PEPCO No. 463. Packed eight 5-lbs. to case.

Peck's

PRODUCTS COMPANY
610 E. Clarence, St. Louis 16, Mo.
Manufacturers of Soaps, Detergents, Sanitary Chemicals

SPECIAL TRIAL ORDER

MAIL COUPON NOW

PECK'S PRODUCTS CO.
610 E. Clarence, St. Louis 16, Mo.

Ship 125-lb. drum of EXP. Bill at special price—same price per pound as on 325-lb. order.

NAME_____

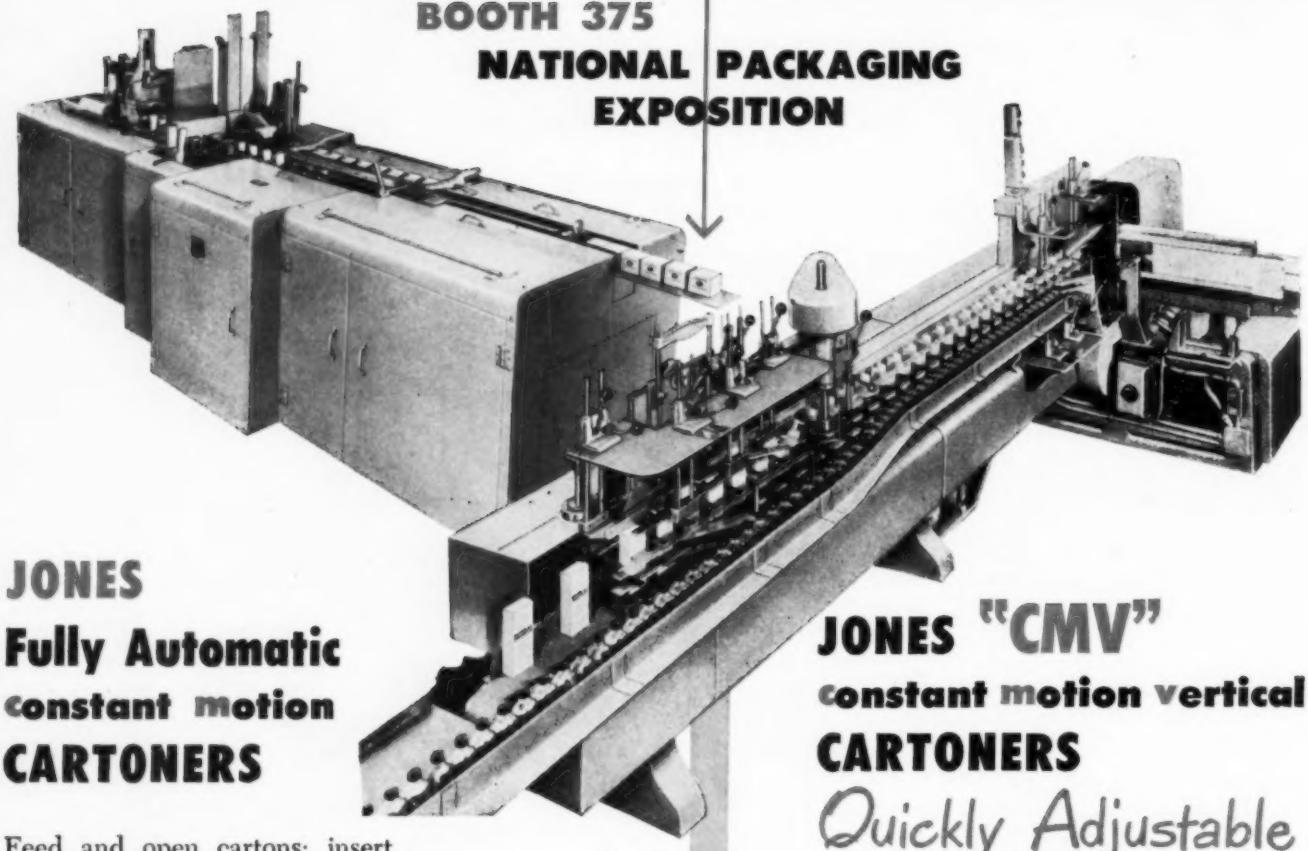
FIRM_____

STREET_____

CITY AND ZONE_____ STATE_____

JONES CARTONERS *IN ACTION!*

BOOTH 375
NATIONAL PACKAGING EXPOSITION



JONES
Fully Automatic
constant motion
CARTONERS

Feed and open cartons; insert single or multiple loads; glue or tuck flaps of cartons – airplane or reverse tuck.

Fold and insert leaflets, booklets, corrugated liners; print or stencil code; are convertible to different sizes of cartons and loads.

Speeds: up to 300 per minute, depending on size and type of load.

See Jones Cartoners in Action!

JONES "CMV"
constant motion vertical
CARTONERS
Quickly Adjustable
TO ANY SIZE CARTON

FROM $\frac{3}{8}$" x $\frac{1}{2}$" x $2\frac{1}{2}$"

TO $3\frac{1}{4}$" x $3\frac{1}{4}$" x 8"

Feed and open cartons – airplane or reverse type; tuck bottom flaps; carry cartons upright in *constant motion* past loading stations for manual insertion of load; tuck top flaps.

PUT JONES ON YOUR EXPOSITION SCHEDULE

R. A. JONES & COMPANY, INC.
Cartoning Machines – Soap Presses

P.O. Box 485
Cincinnati, Ohio

. . . in brief

as the editor sees it

STATE FEES . . . In Michigan, a proposed amendment to the state Insecticide, Fungicide & Rodenticide Act would have boosted fees for registration of insecticides, disinfectants, rodenticides, etc. to a flat ten dollars per year per brand. The reason for this stiff increase appeared to be that the law is more expensive to enforce than originally was anticipated. Just what that has to do with those who are compelled to register their products in Michigan, we fail to see. Nor, can we perceive the justice of any registration fee of this character.

The fact that this proposal has been reported pigenholed in committee as a result of stiff opposition from national trade groups and local manufacturers is beside the point here. It is still another sample of the vicious trend in state legislation. Firms with many brands get it squarely in the neck as do small outfits with limited sales. The pattern is always the same. Today this fee boost may be dead, but tomorrow there will be another one somewhere else to take its place. The parade never ends.

SANITARY SUPPLY SALES . . . On the agenda for the annual meeting of the National Sanitary Supply Association this month is a panel discussion on methods of compensating salesmen. From this could come some very interesting and enlightening information if the panel members really let their hair down and talk out in meeting. On numerous occasions, we have heard it stated that the surface of the potential sanitary supply market has not yet been scratched. That such a situation may have a direct connection with types of salesmen's compensation, and the latter, in turn, with the extent of general sanitary supply sales, would seem evident.

In the light of the ever more complicated system of sanitary chemical and janitor supply selling in vogue today, the part played by the salesman may be anything from zero to ninety percent. How many items are in his price book? Does he have to "sell" a thousand things or just a few? Does he have to scramble around making twenty-five or thirty calls a day in order to make a living? Or does he have time to do some real selling,—and at the same time earn a reasonable income? These and a number of other questions, we believe, are quite closely tied up with the extent and methods of compensation, and with the volume of industry sales. They are a part of the over-all sanitary supply sales picture which we believe well could be included in the NSSA panel discussions in Chicago.

MAYBE WE'RE DUMB, BUT . . . Maybe we're dumb and don't know too much about the fine points of marketing soaps, detergents, *et al*. And maybe this business of soaps and synthetics beating each other's brains out via radio, television, and printed advertising is all to the mustard. Maybe the advertising agency boys,—whose devious thinking and tricky jargon always have intrigued us,—know what they are doing. But, when companies who market both detergent and soap products,—and who doesn't these days?—push the sale of one by damning the other, we wonder if the idea really is as smart as it probably is supposed to be.

Only recently, a prominent synthetic detergent marketer in advertising one of its soap products pulled the old bromide, "are these new washing chemicals ruining your hands?" Smart? We doubt it. Such could be a sop to the Gillette Bill crowd and the tallow "farmers" in Washington.

Or maybe just simple economics, pushing soap sales when tallow is cheap. And, then again, it could make some mighty good ammunition for the Delaney Committee to shoot at synthetics. No matter the reason, we question the soundness of such advertising. Sure, it may sell soap today. But, what does it do tomorrow?

DOWN THE RAT HOLE . . . Monotonously, the story is the same each time. Gross business up ten, twenty or thirty per cent, gross profits up proportionately, net profits down sharply. Examination recently of several hundred company financial reports for 1951 reveals the same set of conditions. Gross earnings show a substantial increase, but taxes consistently have knocked the stuffing out of them. And that was the picture for 1951. Wait until we get the figures for 1952, 1953, and thereafter, if the present trend continues. The figure opposite "profits after taxes" is likely to show even a greater shrinkage.

If the word, "economy" appears in Washington versions of English dictionaries, one would never suspect it. The same old government spending goes on and on and up and up,—never down. Where one deserving department warrants its appropriation, there are probably three which involve gross waste of public funds. Money which should go into needed projects is syphoned off by others more astute through political connections. Behind the tax gripes of business men is not necessarily the extent of high taxes, but probably more the certainty that half of the taxes which they pay are poured down thousands of government rat holes.

SUPERMARKET TREND . . . Although they comprise only 3.4 per cent of the retail outlets, supermarkets account for 41.8 per cent of the nation's food business, not to mention household soaps, floor waxes, and the like. In the past twelve years, supermarkets have increased their sales volume six times. In the next twelve, the experts tell us, they will expand to where they do almost two-thirds of the grocery store trade. Recently, we were informed that one of the leading supermarket chains did business on a gross profit spread of eighteen percent. This was something of a shock when we realize that the average independent retailer needs this much *net* margin even to exist. Low operating costs, fast turn-over are the supermarkets' competitive edge against which ever fewer independents appear able to stand up.

Obviously, more and more manufacturers are gearing their products to the supermarket trade, giving more attention to shelf-display package characteristics and advertising. The trend figures might indicate that they have little choice if they plan to keep abreast of the parade. At the same time, let us not forget altogether in going after the supermarkets, that more than half of all the food, soap and floor wax today still goes to market via independent stores. They may be dying, but they ain't dead yet.

MEANINGLESS CEILINGS . . . With soaps, detergents, cleansers selling well below OPS ceiling prices at the moment, the matter of price controls is principally of academic interest. The reams of regulations,—some of them twenty and twenty-five pages long in small type,—to some extent have become meaningless to larger manufacturers and marketers. To most of the smaller outfits, they always have been and still are exactly that,—meaningless. Necessary records continue a nuisance to the companies which keep them. A few just ignore the whole thing, like the fellow who refused to pay an income tax because he didn't "believe" in it.

At the present stage of affairs, ceiling prices on many things seem to be without point. But, they tell us in Washington, suppose prices suddenly zoomed upward. Ceilings are there to halt a runaway market. Perish the thought of zooming prices under any such conditions! If OPS moved with the alacrity which marked the initial adoption of ceilings, a lot of business operators could find themselves squeezed to a dry pulp before they might get relief. But, who's getting excited on this score right now? Orders, or lack of them, are more the worry of the moment.

as the reader sees it . . .

Private Brand Abuses

Editor:

Some of your advertisers offer their merchandise to jobbers under private label. As you are no doubt aware, jobbers frequently direct the manufacturer to ship directly to the consumer using private (jobber) label and identification only. It is obviously of utmost importance that the jobber be able to send such orders without fear or danger of the manufacturer soliciting this same business. In the event that your advertisers abuse this confidence, what is your policy?

William Berens
William Berens Co.
White Plains, N. Y.

That a manufacturer who will abuse the confidence of a private brand of drop-shipment customer is to be condemned ought to be quite apparent. In principle, this is our policy, and always has been. But, for any publisher to police each and every transaction initiated through his advertising pages is manifestly impracticable. In no way do we condone this practice, but it has been going on for years, and often involves extenuating circumstances. We would deal no further with the offender. But,—caveat emptor! A further more detailed discussion of this subject appears elsewhere in this issue.—Ed.

Editorial Bothers Him

Editor:

We were considerably bothered by the little paragraph in your January "In Brief" section where you discuss washing machines and synthetic detergents.

There has been a lot of discussion on this subject, and it has been given much careful study not only by the soap manufacturers but the washing machine manufacturers as well. The problem is a rapidly disappearing one and never was as acute as some interested parties would like to have us think.

We believe we are familiar with the survey to which you referred. If so, it was based on interviews with servicemen and washing machine distributors.

The serviceman has run into a couple of facts. First, he has seen the number of washing machine complaints double since before the war. Secondly, he has seen synthetic detergents for washing machine use come on to the market since the war. Finally, he notes that of the people who develop service problems in their washing machines a very large number are using synthetic detergents.

This all seems very logical until you look at a few other facts. In the first place, the number of washing machines in homes today is twice what it was before the war. It would therefore be very surprising if the number of service complaints had not doubled also. Secondly, a very large percentage of the population is using synthetic detergents today; therefore it is perfectly natural that a large percentage of the people having difficulty with their washing machines should be using synthetic detergents. It also happens to be true that a large percentage of the people who do *not* have difficulty with their washing machines are also using synthetic detergents.

It's a little like the story that white horses eat more than black horses on a given farm. It turned out that the reason was there were more white horses.

We are attaching a letter which we recently sent to a number of women's page editors. I wish we had thought to send it to you, but I guess we assumed you were already familiar with the facts of the situation.

As for your editorial treatment of the subject, we have only one suggestion to make and we hope you will accept it simply as a good natured proposal: the next time you receive a study "made by a well known manufacturer whose views might be biased" won't you give serious thought to checking the conclusions with other people who may be biased on a different point of view but at least can present you with a new set of facts? Your comments are labeled "Offhand," but nevertheless they make it hard for your readers to obtain the correct impression of the situation.

(*Turn to Page* 173)

"Our new service man. They say he won the 1500 at the Winter Olympics!"

Synthetic Detergent

nears two billion pound mark

WHEN I first spoke before a meeting of the Association of American Soap & Glycerine Producers in 1947, things were quite different from what they are now. There had been a great amount of publicity concerning the new detergents, of which the public was just becoming conscious, and yet the amount produced was unknown. The possible effect on the future markets of the soap industry were enigmas of very great concern to all those present. There had been widely publicized predictions by enthusiastic but careless prognosticators that the synthetic detergents would completely replace soaps, and it is small wonder that soap manufacturers were a vitally interested but somewhat skeptical audience. When I mentioned a billion pounds of synthetic detergent, it was not without audible protest.

By 1946, the production of synthetics had reached the surprising total of 275 million pounds, while the soap output for that year was over ten times higher.

Growth of Detergent Market

REFERENCE to Figure 1 will show that the billion-pound mark of synthetic detergent production annually was almost reached in 1949; it was passed in 1950; while in 1951, the annual synthetic detergent production rate was already three-quarters of the way to the two billion pound mark. If the present rate of increase were to be maintained, the two billion-mark would be reached in 1953. Also shown on Figure 1 is a more conservative view with regard to the future, which is based on the views of some people in the Soap Association and published information. Even those people who like to take a conservative view of the situation visualize a two billion pound annual production by 1955. There is then no disagreement as to the probability of the market reaching two billion pounds at a rate which assures further rapid expansion.

The more conservative viewpoint is based on two premises of major importance. One premise is that the synthetic detergent is replacing soap; and since the production of soap is limited, the increases in synthetic detergent production must slow down as the production of soap is approached, whereupon further increases would be based solely on the growth of the population. The second premise, encouraging a more conservative attitude towards the future, is that there will be shortages of raw materials, restrictions on building and other adverse factors which are all part and parcel of the rearmament program.

The people who take the viewpoint that synthetics are replacing soap find some support in the fact that the per capita use of soap and detergents has added up to about the same figure over the past ten or twelve years. However, soap production figures can be misleading; the true measure of the value of soap is the amount of fat and oil which is used in it. Figure 2 shows that the consumption of fats used in soap was greatly stimulated by the introduction of the synthetic detergent. Consumption increased as detergent production hit its stride. The consumption of fats shows a leveling off. It could be concluded from the performance of the past several years that there is a downward trend in the consumption of fats and oils; nevertheless, this has not gone far enough to be well established. And even the estimate for last year's consumption, which is at the bottom of the present decline, is well above the consumption of fats when the manufacture of synthetics got under way.

Synthetics Up Soap Fat Use

IT IS difficult to look at these curves and agree with those people who say that synthetic detergents have merely replaced soap. If they had, consumption of soap fats would have declined 30 per cent instead of increasing almost 50 per cent. It is my belief that whatever the bottom may be of the present downward trend, soap production will continue to expand. This is not based on curves or statistics; it is based on the sound appraisal of what has happened in many synthetic developments of the past. Industry is making better soap today than it has ever made, a fact which deserves wider publicity by this group. The soap business is still a good business, and it is to be expected that soap manufacturers will expand their soap research and develop

* Based on paper presented at 25th annual meeting, Assn. American Soap & Glycerine Producers, Inc., New York, Jan. 24, 1952.

Production

By Lawrence Flett*
National Aniline Division
Allied Chemical & Dye Corp.

improved products to meet increased consumer demands.

With regard to the second point, the uncertainty of the future, 1952 began with very serious problems of materials, equipment and substantially anything needed for expansion. It would seem to be a reasonable viewpoint to expect an easing off of the market expansion in synthetic detergents. However, it is difficult to close our eyes to the fact that this exact same situation existed a year ago and was widely publicized with respect to synthetic detergents. In spite of many problems, the synthetic market continued to expand in 1951 at its normal but phenomenal rate. The soap and detergent industries have been resourceful and ingenious in meeting their many problems.

The raw materials used in the manufacture of synthetic detergents and soaps are certain to be an increasingly serious problem. Until very recently, the soap and detergent industries could be regarded as by-product industries. Soap basically is made from tallow, which is a by-product of the food industry. Its price fluctuates widely with demand. For a brief period during the last war, the curtailed supply failed to satisfy the demand, and tallow ceased to be a by-product. Now it is back in the by-product class again, but soap manufacturers should be warned that what has happened before will happen again and again. Looking years ahead, the increasing demand

SYNTHETIC DETERGENT PRODUCTION

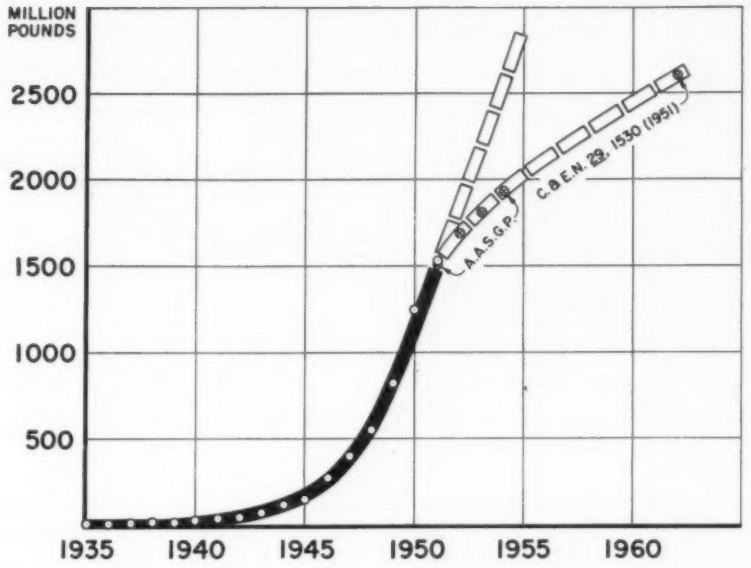


FIGURE 1

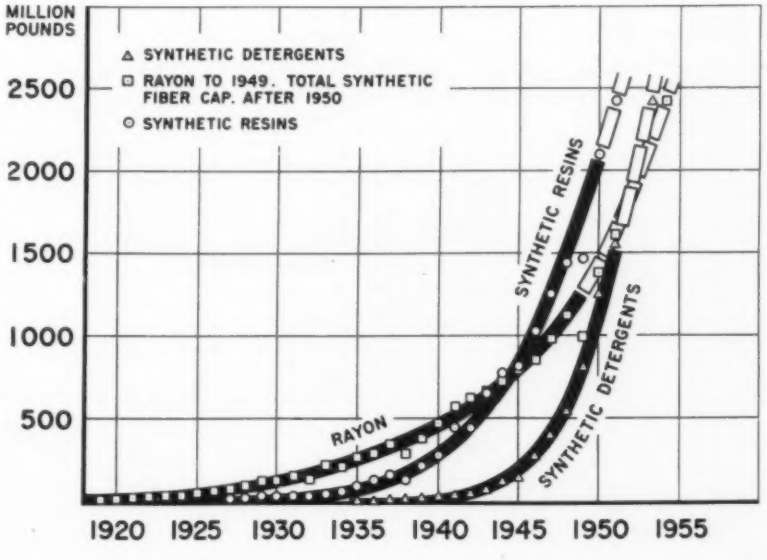
for fatty acids by other industries will lift tallow permanently out of the by-product class and make it a valuable chemical raw material.

No Longer By-Products

SO MUCH for soap. What about synthetics? Benzene, kerosene, propylene and ethylene, which are the basic products used in the manufacture of those detergents made from petroleum, were all by-products at one time, but they are not by-products any more. Benzene was once disposed of by selling it as a low-priced gaso-

FIGURE 2

GROWTH OF U. S. PRODUCTION OF SYNTHETICS



line, but the by-product coal tar from the steel and gas industries no longer supplies an adequate amount of benzene. At the present time, synthetic benzene is being used for synthetic detergents. Kerosene ceased to be a by-product when the first cracking process was developed, and today there is scarcely an adequate supply for fuel. Propylene and ethylene, once waste products of cracking, became valuable with processes to make them into high-test gasoline and later into aliphatic chemicals. At the present, they are manufactured separately because supplies are inadequate.

Looking at the over-all picture, there are serious problems in the supply of raw materials, but these problems are essentially problems of the long-range future. The problems for 1952 are the same kind of problems that were solved in 1951.

The growing period of the synthetic detergents has been a most unusual one. They were introduced in the U.S. in the midst of one of the worst depressions this country ever experienced. They have been through a period of war, and have seen good times and bad times. There were times when people were knocking at the door and demanding detergents; and there were times when it was necessary to go out and fight for business in order to sell them. There were times when materials were plentiful and times when equipment for expansion seemed impossible to get.

Production Expanded Steadily

NEVERTHELESS, as can be seen in Figure 2, the growth of synthetic detergents is an astoundingly smooth line. There is no time throughout their entire history when the production for the succeeding years could not have been predicted accurately by the simple process of prolonging the curve. Since this trend has gone forward steadily, it is statistically rash to assume that 1952 is the year when the growth curve will break.

This production curve, which represents the increasing sales of synthetic detergents, is not a curve carved by destiny on the walls of time; it is a curve that is made by the combined total effort of all of the groups represented in the industry: the genius of research, engineering, sales, production, purchasing, market research, technical service, advertising, management and all of the other functions that go to make up a modern company. It is the sum total of the work of the large companies and the small.

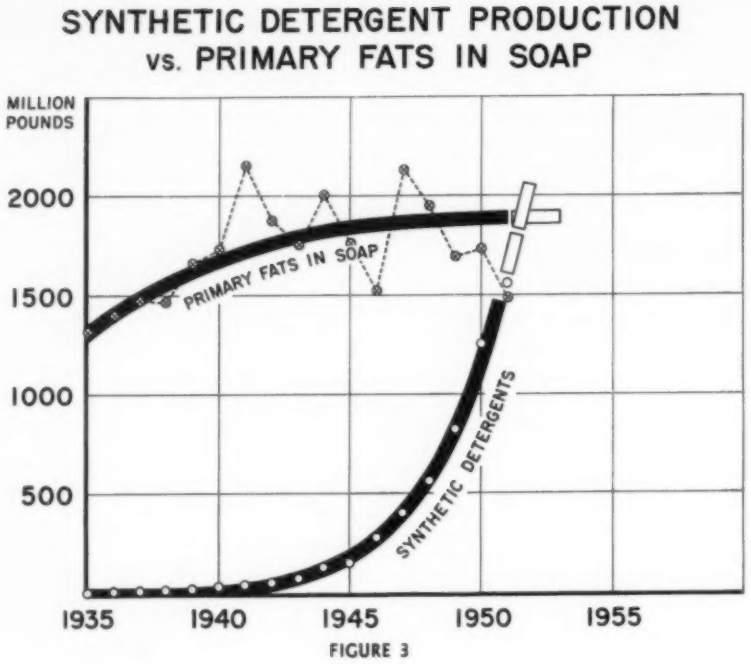


FIGURE 3

The Newest Synthetics

THE organic chemical industry, which started in this country about 1918, is essentially an industry providing synthetic substitutes for materials originally furnished by nature. Dyes, textile fibres, flavors, resins, rubber and drugs were all provided by nature long before the chemist made them readily available in good quantity and at low cost. The new synthetics of all kinds have had such remarkable properties that they called for almost daily comment in the newspapers.

These developments have led to fascinating new products, but in general they have not exactly duplicated and displaced the natural product. To all of them there is a certain sameness. There is a similarity in their unbelievable rates of growth. It is just inconceivable that the production of these products can go up and up and up with never a break in the curve. Nevertheless, that is just exactly what they have been doing.

Synthetics Compared

THOSE of you who don't study markets will be amazed to compare the synthetic detergent development with that of other synthetics. Figure 3 is a comparison of three synthetic developments: synthetic fibres, synthetic resins, and synthetic detergents. These curves deserve study. The synthetic detergent is the most recent of the important synthetic developments. It has grown faster than any other, thanks to better marketing methods and the amazing selling capacity of the soap and detergent industry. In the early days of its growth, it was easy to predict a large volume future for synthetic detergents based on studies of other synthetic developments, such as synthetic fibres and resins. Now that the volume of synthetic detergents is approaching that of synthetic fibres and resins, they cease to provide the historical background which has been such a useful gauge in the past.

A more detailed study of the growth of synthetic fibres and syn-

thetic resins than is shown here has indicated many times in the past when it seemed certain that the curves were going to break and the growth of production would slow down. When these situations arise, new products appear which enjoy such a large demand that suddenly they push the curve back on that insatiable upward trend. Output of any single synthetic product would expand very rapidly and then, as the market became saturated, further growth would be proportional to increases in population. It is the development of new products in synthetic fields which opens up new and expanded markets. Until recently, the curve for the growth of synthetic fibres has been substantially that of rayon, since such fibres as nylon, Orlon, Dynel and Vicara were not significant factors. Now, when the rayon curve is leveling off, the greatly expanded production of the new fibres swings the growth curve back and keeps it headed upward at a rate that far outstrips the growth in population.

Significance of New Products

IN the synthetic detergent business, this same thing must happen. Americans are always receptive to new products for cleaning operations, which cannot be performed satisfactorily with presently existing ones. Such new products are constantly being introduced by the detergent industry. New cleaners may be easier to use or more effective for cleaning jobs impossible to perform with today's products. They will bring about an upsurge in the production of detergent products and so serve to prolong the period of rapid growth.

Basic Research Trend

ONE of the present interesting developments in the detergent field is the trend toward basic research. This industry uses the most modern scientific instruments and scientific knowledge. It is one of the oldest of the industries, possibly second alone to the food industry. But in spite of science or time, the primary and the really basic problem of this industry remains unsolved. That is the problem of how soaps and detergents wash. I am well aware that the colloid chemist can talk glibly about the "hydrophilic" and the "hydrophobic", and the copywriters can explain how the millions of tiny little bubbles force their way into the fabric and push the dirt out. Nevertheless, the only way in which this industry finds out whether or not a product will wash is by trying it out in the wash tub or its laboratory equivalent.

Although petroleum chemists rubber chemists, corrosion chemists, antibiotic chemists, textile chemists and a long list of other specialized chemists meet regularly for scientific discussion, there are no such conferences on soaps or synthetic detergents. The only important scientific gathering in this field which I can recall is a symposium organized by the New York Academy of Sciences in 1945, which resulted in one of the most valuable publications in the detergent field. Encouraging is the willingness of a group to participate in a single session of the Gordon Research Conferences next June.

In recent years there has been a gradual accumulation of valuable data on detergents. Progress has been made in studying the size of micelle formation and the swelling effect which water-insoluble oils have on the micelle. Studies have been made of the factors governing the amount of detergent picked up by various fibres and the extent to which the detergent is withdrawn by rinse waters. Unfortunately, the amount of research being done in this field is limited. A great deal of the work has been repetitious, each person working with his own particular product and under conditions which make his work of little use to other laboratories. If this industry had regular scientific conferences at which new findings were discussed, it would be possible to look forward to an early solution of basic scientific problems. Out of this would come advances beyond our dreams or hopes.

In science, all thoughtful work results in progress. Out of such work come scientific advances. This group cannot go too far in encouraging every scientist who wishes to study soaps and detergents. These scienists can be encouraged by discussion, by publication of interesting scientific data, and by interest in their work.

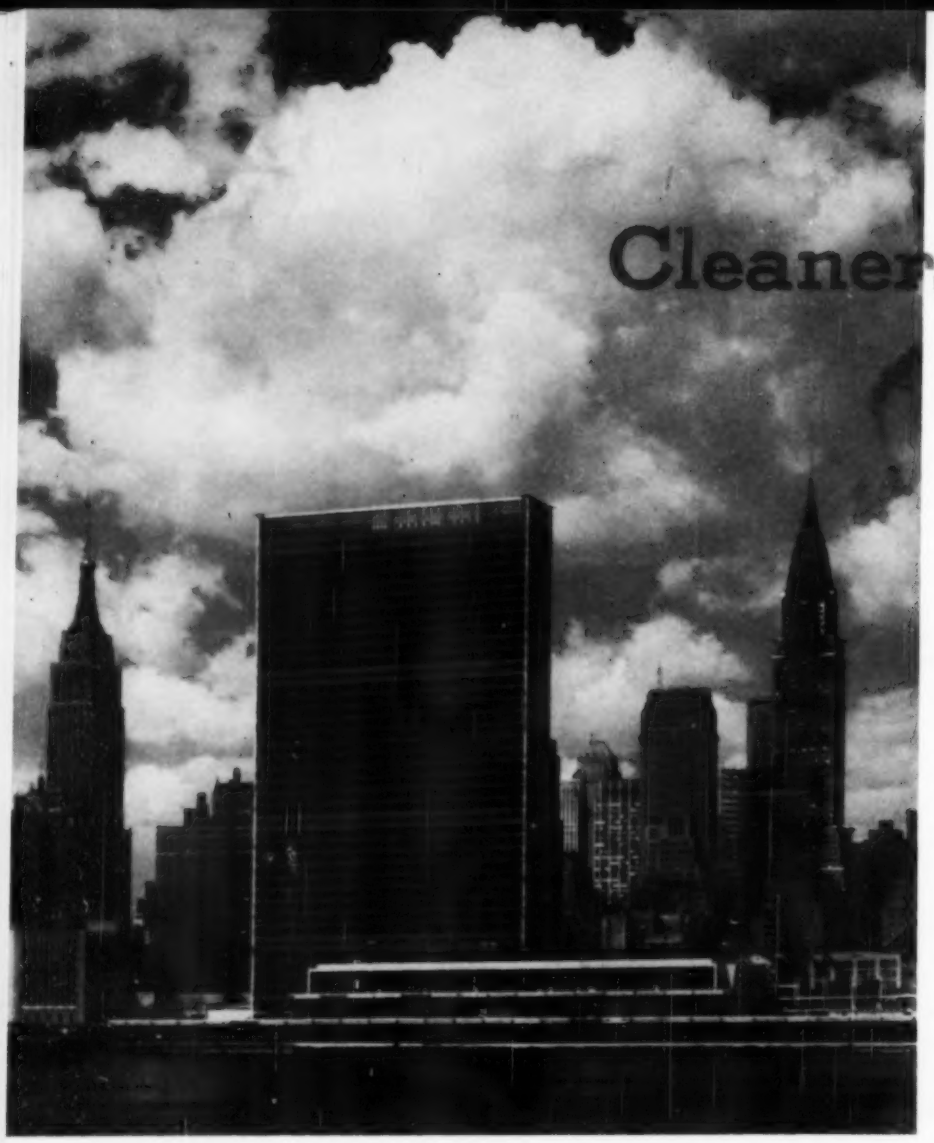
Benefits of Detergents

NO APPRAISAL of the synthetic detergent development is complete without mention of some of the marvelous things they have done as well as the wonders yet to come. One of the first and most important benefits came in the form of better dairy products: milk that could be sold in stores because it kept longer; better butter, cream and cheese. Then came the speeding up textile processes. There are better soaps particularly for use in sea water. Recently, the old Navy specification for salt water, coconut oil soap was cancelled in favor of soap cakes containing a synthetic. The synthetics made it easier to use soap in the home; drains plugged with waxy, lime soaps are becoming unknown. There are better finishes on automobiles due to detergents, which also serve to keep that bright appearance on the modern attractively colored automobile. Both at home and in the restaurants table dishes and glassware shine better because they are cleaner and more healthful. Textiles have better and more uniform colors. Less understandable but very important is the use of detergents to improve Portland cement roads, to make modern paints, to manufacure stronger, lighter wall board, to make artificial fibres and to rejuvenate worn out gas wells.

The list of benefits could go on interminably and include such things as eyeglasses, on which detergent use is very small and the benefits very large. It might include fire fighting or the more recently announced use of detergents to remove inflammable fire hazards. It could include every industry and every part of the home.

Summing it up, the detergent has made work easier at a time when there was less help around the house-

(*Turn to Page* 90)



Cleaners for New

IF it is sometimes difficult to strike a universal chord in a United Nations council session, there is a shining common denominator in French and English rugs, French and American desks, American floor and Panamerican wastebasket . . . fastidious physical cleanliness. Turban, fez and homburg hang on hatracks rubbed with the same furniture polish; soft Eastern slipper and sturdy Western brogue trod corridors and lobbies mopped with the same floor cleaner. As far as the Building Management Services section of the United Nations is concerned, representatives of the 60 member countries working for constructive world harmony in the Secretariat building's 1600 offices are all brothers under the feet.

To the magnificent group of buildings on New York's East River, clustered around the architecturally unique Secretariat structure which is its center, daily come 3000 people, once from the four corners of the world, now bringing dust, slush, snow, mud and whatever the weather dictates from the four corners of Greater New York.

When, in September, the General Assembly headquarters are completed, to this traffic of "working" personnel will be added the comings and goings of the hundreds of delegates themselves.

Public areas, private offices, meeting, conference and council rooms, ramps and concrete areas with and without machinery in the basement levels, corridors, washrooms, elevators and stairways through 39 floors, add up to hundreds of thousands of square feet of cleaning problem.

To deal with this, almost two hundred workers, some on the payroll of the United Nations, most under contract, work virtually 24 hours a day in a meticulously planned and intensively supervised program. This cleaning contractor, one of the largest and best equipped for big scale work, operates under a specific plan created and controlled by the Building Management Services personnel of the United Nations. His working schedules, the materials he uses, the character of his performance, all are United Nations directed even though he supplies the bulk of the skilled manpower and of course the fruits of a wide experience in this special field.

Director of Buildings Management Service is F. M. Begley, and Deputy Director is A. R. T. Coke. It is to these men in the actual development and execution of the cleaning program that the bulk of the supervision falls. The three key superintendents keep an eagle eye and a strong right arm on the multitudinous and remarkably inconspicuous cleaning and sanitizing operation. It must be noted especially that this group of buildings are open to the severest kind of scrutiny, not only from our own American public which looks at them as the symbol of mankind's hopes for world peace, but from the very important eyes of global neighbors, the comfort and cleanliness of whose working quarters are in American hands. This is probably the only building in the world where an exposed trash can could cause international complications; therefore cleanliness is a very serious and painstaking job to do.

3 Cleaning Operations

DO it they do, with magnificent results. Let's see how this works. In the first place, the cleaning operations are divided into three basic classes. Type A includes all office

U. N. Skyscraper

By John Regan

area; this means not only offices themselves, but all attendant corridors, lobbies and service facilities, like escalators, elevators and, of course, womens' and mens' washrooms and lounges. Type A, in effect, includes all cleaning problems in the thirty-nine floors above the street level in the secretariat building, and the office and conference rooms and similar facilities in the Library, Conference building and assembly hall. Type A is the most detailed and most refined in its variety of operations, kinds of surfaces to be cleaned, number of servicing schedules to fill and in kind and variety of materials and equipment used. Of the thirty-nine floors in the main building, all but three are used by U.N. personnel, the others being devoted to elevator and air conditioning machinery, and consequently, with the basement areas, falling under either Type B or Type C schedules.

Type B is the classification for concrete surfaces in rooms in which machinery is installed. It does not include the machinery itself, except in terms of its encased surfaces. Machinery as such is maintained by the trained category of worker who operates it; for instance, printing presses, duplicating machines, elevator and air conditioning apparatus, kitchen equipment, mail room and pneumatic tube devices, etc., etc. In these areas, the floor and wall surfaces and attendant facilities are kept clean by the central building service program, but the functional portions of the machinery are not. At the U.N., Type B cleaning therefore applies most heavily to the three levels below the street, where the bulk of the fascinating machine facilities are located, and to three floors in the main building above the street.

Type C cleaning is in a way the least complicated, in that it refers to concrete areas in which no machinery or other installation is involved. For the most part this means the remarkable parking areas under the buildings, leading both from street levels and from the riverside express highway. It includes also the ramps, for pedestrian and automotive traffic, between levels, and to and from the outside; and the surrounding concrete or cement surface at the main plaza entrances.

The reader will better appreciate the skillful planning and precision management of this giant size cleaning job, by spending a few minutes on the absorbing story of the building itself, its functions and its occupants.

An International Settlement

IN a manner of speaking, the United Nations Buildings are not in the United States. It is an international settlement. Its people are "world" employees. As a matter of fact, the proportion of personnel from each of the 60 member countries, that is the secretariat or functioning personnel, is directly related to the percentage of operating costs paid by each member nation. This is in turn regulated by the respective national wealth of each.

The variety of tastes, working habits, food requirements, even in the contents of waste baskets is easy to imagine. Some like it hot and some like it cold, some like it shiny and some like it dull. Contingents from the southern countries are happy at 80°F., while those from the northern climes prefer 60°F. As can be guessed, the air conditioning system is the finest that science can produce, and is adjustable 10° either way in each individual exterior office. There are really two systems, paralleling each other. The first runs through all areas adjoining the exterior of the building; that is, offices against the window sides. This utilizes piping which carries a rapidly circulating liquid compound which retains heat. The liquid has first passed through centralized coil systems which are brought to any desired temperature. There is no "heating" plant as such. The New York Steam Company is the initial source, feeding in from outside. This liquid carrying system serves radiators. The paralleling system carries heated air in winter, which exits through vents or blowers, in the interior areas of the building, and in the basement levels. It is the latter system which supplies cooled air in the appropriate seasons, for the whole building. These buildings are truly air conditioned, not simply heated or cooled. Consequently, an elaborate filtering sytem, and thermostatically activated releases for overheated air keep the premises almost entirely dust free; that is, there is no intrusion of outside city smogs, industrial and shipping smoke, or the materials raised from the traffic in the city streets.

A worker in the U. N. buildings enjoys every modern comfort; lounges, recreational areas, absolutely

A window washer high up on the new U.N. skyscraper in New York. Below is the East River and above and across it is the 59th St. bridge leading to Long Island. Acres of windows in the almost completely glass-sided structure are cleaned regularly.

spotless washrooms, excellent cafeteria, and numerous snack bars scattered throughout the building. For the ladies especially, each washroom has attached to it a full fledged powder room, with mirrors all over the place, so that the old face can be removed and a new one put on with the greatest of ease. There can be a fire, and the U. N. will put it out, with its own department, which is equipped with the most marvelous smoke and heat detection devices, and locates a fire, however obscure, in a matter of seconds. You can get mad and break a window or a glass partition, and the U. N. will fix it, one, two, three. You can make a speech and the U. N. will print it, on one of five modern high speed presses. If a certain kind of tool is needed, U. N. will make it, in an excellent equipped machine shop. If you scratch your furniture, U. N. will paint it. If you want the shape of your office altered, in many cases, U. N. will move the walls around, there being a series of standard partitions. If you insist on being sick, U. N. will make you well, or at least give you a fair shake at it in a spic and span and up to date self-run hospital. If you want a cup of tea at any hour of the working day, you can get it at a snack bar. If you drop a bottle of hand lotion, a porter will answer a summons to clean it up. If you want to drive to work, you can park your car right in the building. After working hours if you want to play bridge, or whist or canasta or chess, you have places to do it and people to do it with.

Acres of Glass

THE secretariat building has 5400 windows, hundreds of mirrors, and even glass spandrels (the area between floors on the outside, usually brick or metal). Literally acres on acres of glass, so that it is a most efficiently lighted, bright and cheery place to be, and of course an almost automatic foe of dirt. There are almost 15,000 separate panes of glass, excluding lounge, washroom and powder room mirrors; 34 ladies' rooms contain 3 large mirrors each, one of them four by ten feet. Forty men's rooms have a couple of large mirrors apiece, too. The glass shelving in these facilities, as well as in other sanitary areas, averages 5 inches deep and 32 inches long, and stretched end to end would land in Timbuctoo. All buildings can be entered from each other, and the three major Council Chambers, donated by Norway, Sweden and Denmark, are the absolute in magnificence and good taste. A visitor to them can hear the whole discussion, all speeches, in any one of the five basic languages designated as such by U. N., by simply turning a dial on his chair arm to the desired notch, and donning a pair of earphones supplied. These quick paragraphs simply touch on the fabulous characteristics and facilities to be found in these world supported buildings, but they will serve to orient the reader to the logical breakdown and patterning of the cleaning schedules.

UN Buys Own Supplies

AS pointed out, the United Nations' own Building Maintenance Services controls and specifies, buys and supplies all materials used in cleaning to the cleaning contractor company, whose workers execute the bulk of the program, especially in the night hours. Mechanical equipment, brushes, cloths, scrubbing devices, etc., are, on the other hand, bought and owned by the cleaning contractor. Building Management

Types of surfaces to be cleaned range from aluminum, which is used extensively for elevators, partitions, etc. to terrazzo floors and marble walls, as in main lobby of Secretariat building.

Service's guidance and instructions are followed.

In the purchase of cleaning materials, the United Nations follows this procedure; the Purchasing and Standards department is the first point of entry, and officially, the only point of entry for a vendor of material. He submits with his samples a thorough and independent chemical analysis of his product, and it will be tested with others in its category when that particular cleaning job is up for periodic checking in a regular cycle. Tests are made by putting small quantities in containers, labeled A. B. C., etc., and each container is used in a separate spot in the building, but on the same surface of course. Thus with only one or two men knowing the identity of the product, but not including the worker applying it, a really impartial test is afforded. The United Nations is in a delicate position with regard to purchases, and obviously must be considered above the possibility of partiality or vulnerability to pressure selling tactics. Hence, blind performance tests, the opening of bidding to all products which suit the rigid standards set up by the United Nations and made available to manufacturers, insure against undesirable selling or purchasing tactics. Obviously, Standards is influenced by the expert opinion of the Building Maintenance Service personnel, and by the cleaning contractor's management; these men, especially the latter, actually apply the material, and are best equipped to advise in its selection.

Glass is another surface widely used throughout the new U.N. skyscraper. A battery of washers is constantly at work.

Surfaces to be Cleaned

NOW, to the surfaces to be cleaned, with what and by whom. Of the almost 2,000,000 square feet involved, about half of that figure will, in about September, be Type A cleaning, that is office areas. This means about 200,000 square feet of carpeting when all the additions presently being built are completed, and the rest in terrazzo floors, marble floors, marble columns and walls, asphalt tile floors (which incidentally make up the bulk of the floor areas, especially corridors and office flooring as such), concrete freight elevator areas, etc. There are painted wall surfaces and various marble and travartine walls, the latter at elevator landings particularly. In washrooms, ceramic tile is used on floors and walls, and a black composition marble for the partitions between individual units. Ribbed glass is used throughout the building for office partitions, usually comprising the upper half of the partition. The same ribbed glass is used to divide sections of special service rooms, such as between the powder room and washroom in the case of ladies' facilities. Aluminum is used frequently and tastefully in many areas, but especially in the main lobby, on all elevator doors and fronts, on every floor, on all stair rails in the building except those in the "back" or service and fireproof stairs. Escalators which run from the first to the fourth floors are especially broad and handsome, and make use of aluminum both in the functional and decorative aspects of the stairs; much glass enclosure is used here, too.

On terrazzo, the bulk of which is in the main entrance lobbies but a section of which is also on each floor, a liquid soap is used in solution of approximately 7½ ounces to the gallon of water. It is applied by the cleaner's personnel, nightly, without the use of automatic floor washing machinery, since the plan of the area is ill suited to it. Regular 15 and 30 gallon mopping tanks are used,

(*Turn to Page* 171)

Cleaning and Maintenance of

HARDWOOD FLOORS

STRIP hardwood flooring is the most common type of hardwood flooring. As most people see only the surface of the final floor and have little or no conception as to how the strips are milled or how they form a floor, a brief description of a piece of flooring may well be in order for sake of clarity of the remarks to follow. Even here at the beginning the problem can become complicated as hardwood flooring is manufactured in some 300 different widths, thicknesses, grades, species and designs. The most common type and the one described here is the 25/32" thick by 2¼" face. The flooring has a tongue on one side and a groove on the other side longitudinally along the strip. This combination is known as side matching. One end of the flooring has a groove and the opposite end a tongue. This combination is known as the end matching. The side matching tongues and grooves are slightly below center to give more wearing surface. All flooring manufacturers who are members of the National Oak Flooring Manufacturers Association use these standard side and end matchings. This is of importance when a floor is to be repaired.

Many times a floor layer is censured for floor problems when really the trouble arose from something beyond his control. The major problems can be grouped under the following headings:

1. Improper structure of subfloors.
2. Subfloors of too high moisture content.
3. Insufficient nailing and face nailing.
4. Hammer marks.
5. Improper distributions of strips.
6. Settling of foundations.
7. Mismanufactured flooring.
8. Time of installation of flooring.
9. Storage problems both in warehouse and on job.
10. Insufficient expansion space.
11. Improper ventilation.
12. Improper areas.

These are the general problems, there can be others that relate to a specific job.

Sanding of Floor

ASSUMING, however, that the floor is correctly installed, it is now ready for the sanding operation. Often this is done by the floor finisher but for the sake of clarity it will be treated separately. A good smooth sanding job is fundamental in securing a satisfactorily finished floor. A poor sand job will not produce a good appearance and may also introduce a condition in which excessive wear can take place. This problem can be grouped under three headings:

1. Drum sanding
2. Edge sanding
3. Disc sanding

Where the proper sequence of paper is not used, straight line scatches will be formed with the drum sander. With the edge and disc sanders these scratches will show up as circles. Where the paper is changed at a given place and the area not reworked the floor may appear to be perfectly smooth but its condition is such that it will accept more of the finish than the adjacent area. Thus the final floor may have a mottled appearance.

The paper sequence and sanding methods vary considerably, with each floor sander having his own ideas on this subject. Ordinarily three grain sizes are used on both the drum and edge sanders. The disc sander on strip flooring is used only for polishing operations. After the floor has been sanded adequately it should be swept thoroughly or vacuumed to remove all the dust. To prevent the floor from picking up moisture and allowing the grain to rise, the first step of the finishing operation should follow immediately.

Finishing Problems

THERE are two major factors that influence the finishing operation: time and the customer's preference. Often these conflict with each other. Floor finishing generally is the last operation to be performed. The job is often behind schedule and the other subcontractors are putting the pressure on the floor finisher to hurry and finish so that they can be paid. The owner has made commitments and he is also putting the pressure on the floor finisher to complete his work. Thus, quality is often sacrificed for speed. The area is often opened to the public before the finish is completely dry and quite often before it has been given a protective coat of wax.

With modern floor finishes available it is possible to give the customer nearly any shade or luster that he desires. In a private home the owner may be willing to sacrifice long wear to obtain a high gloss. Thus varnish or shellac is indicated. Where long wear with a satin sheen is sought, the penetrating seal finishes are the indicated products to use. In either case the directions of manufacturer of the finish should be followed. The relative humidity plays an important part in the drying of the finish. The floor should be thoroughly dry before being waxed and put into service. Often a floor finish apparently will be dry to the touch but is not cured or hardened all the way through. When wax is applied to the finish in this condition the film is softened, becomes tacky, will easily pick up dirt and become unsightly. The drying then becomes a matter of days instead of hours.

* Before 38th annual meeting C.S.M.A., Washington, D. C., Dec. 4, 1951.

By Frank H. Lyons*
E. L. BRUCE CO.

With porous hardwoods such as oak, pecan and walnut, a paste wood filler should be used. This filler should fill the pores of the wood but not the hair line cracks. Whether it is the first step of the finishing operation or one of the intermediate steps depends upon the type of finish to be applied and the preference of the floor finisher. To save time, and sacrificing a superior job, this step often is omitted. Unless a multiplicity of coats of the finish are used the pores will not be filled. The waxing of an incorrectly filled floor tends to fill the pores with wax. The dirt is ground into the wax, making future maintenance difficult.

If all the filler is not removed, the floor will have a cloudy, dirty appearance. Sometimes the filler is buffed with steel wool. Under certain conditions, such as lack of dryness of the filler or too much pressure on the steel wool, dirty black streaks or areas may develop. At other times a floor finisher may walk over the floor before it is completely dry, leaving a series of black marks. These marks can be removed successfully only by sanding. Rolling the sanding or polishing equipment over the uncured floor will also produce black streaks. Often the floor finisher will leave the windows open at night to facilitate the drying of the finish. Should driving rain wet the floor certain areas will take on the appearance of a washboard. Sometimes it is necessary for portions of the floor to be relaid.

Color of Floors

ANOTHER important consideration in the finishing operation is the producing of the floor color desired by the customer. A floor finisher should finish a separate board or a place in a closet to match the desired color before he attempts to apply the final finish to the entire floor. While stains are sometimes used

they can be far from satisfactory over a long period of time because of their tendency to fade in spots where light strikes them. Floors stained with an oil soluble dye can be marked with black and white spots if furniture is moved around on them in cleaning. This unsightly appearance is caused by the stain fading where the light strikes it. The dark spots appear in areas protected from the light by furniture.

The most satisfactory means of imparting color to floors is by use of the paste wood filler. This product is prepared from light fast pigments. If colors are desired that are darker than those derived from the original material, additional pigments, which are available at practically all hardware and paint stores, can be added to produce the required color. However, if time is a factor the oil soluble stain has the advantage since it dries much faster than the paste wood filler.

After a floor has been installed correctly and the finishing operations completed, it should be given at least one coat of wax and polished before being subjected to traffic. Paste or petroleum solvent type waxes should be used. In some sections of the country it has become the practice to omit the waxing by the floor finisher, leaving the waxing to the home owner. Under these conditions the floors can be ruined before the owner moves in.

Maintenance

WHEN one considers the time, expense and labor involved in manufacturing, installing and finishing a hardwood floor, it is only natural to give some thought to its maintenance. This is even more important since a hardwood floor maintained correctly will last the lifetime of the building. The two main factors in the maintenance of hardwood floors are:

1. Cleaning, both general and spot cleaning.
2. Waxing.

As wood expands when subjected to excessive moisture conditions the use of soap and water should be avoided in the cleaning of hardwood floors. The water alone can cause the floor to swell, buckle or cup, producing a washboard effect. These washboard ridges quickly abrade under use and before long the finish is worn away leaving the bare wood. This wearing away of the finish allows dirt and grime to become embedded in the wood making maintenance of the floors difficult. Another good reason for avoiding the use of soap and water on hardwood floors is that harsh soaps are detrimental to many finishes.

Petroleum type cleaners are the recommended products for use in cleaning hardwood floors. The fire hazard around a home is of prime importance and thus as much care should be exercised in selecting a cleaner as in the choice of any other products for use around the home. I have heard of gasoline being used for cleaning floors, which is extremely dangerous and I am glad I was not around when this took place.

Petroleum cleaners which have a wax base are useful for the cleaning operation. This type of cleaner removes the old dirty wax and at the same time deposits a new film of wax.

Spot Cleaning

MANY times small dirty spots develop such as those caused by synthetic rubber heels. Before the petroleum base cleaners were developed it was often necessary to clean and rewax the entire floor to remove one small spot. These small spots can now be removed with the wax base cleaners without the entire floor having to be cleaned and waxed. In fact, as the cleaners have a wax base it is not even necessary to rewax the small spot since sufficient wax is deposited during the cleaning operation to protect the floor until the next cleaning and waxing.

Not only small spots but areas subjected to excessive traffic as well can be cleaned more frequently than less used areas, thus eliminating considerable work and with satisfactory results. The cleaning and rewaxing of the traffic areas with only occasional waxing of the entire floor is often indicated to prevent "build up" of the wax in the non-traffic areas.

In waxing floors we should avoid disturbing the moisture content of

the flooring by avoiding the use of self-polishing, water-emulsion waxes. While these self-polishing waxes have a place in the asphalt and rubber tile field, they are not the indicated product for use on hardwood floors. Effects similar to those encountered in the use of cleaning with soap and water will be experienced when self-polishing waxes are applied on hardwood floors. Paste and liquid petroleum type waxes should be used in the maintenance of hardwood floors.

Possibly the problem encountered most frequently in the waxing operation is that of ridges or streaks in the final film. This is caused by too much wax being applied, and not being levelled out. It should be remembered that two thin coats of wax are far superior to one thick coat. Many times if too much wax is applied and it is not smoothed and evened out, white streaks or spots, which cannot be buffed out, will develop. When this occurs the spots can be removed by rubbing them with a piece of "00" steel wool dampened in the petroleum type cleaner and then immediately wiping up the spot with a clean cloth.

While the foregoing remarks are somewhat general in character they do show that the best finishing and maintenance methods will not produce satisfaction on an improperly installed floor while improper finishing and maintenance methods can ruin the best of floor installations.

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ADM Buys Sperm Oil

Archer-Daniels-Midland Co., Minneapolis, announced recently that they had purchased 17,350 long tons of sperm oil from Spermacet Whaling Co., Tonsberg, Norway. The oil was delivered in two lots to ADM's Bayway, N. J. plant. Spermacet's whaler, the *Anglo Norse,* transferred over half of the total to the New Jersey plant via tanker in October. The whaler brought in 8,000 tons Feb. 2 at the end of its 10-month cruise off the coast of Peru. ADM's order of sperm oil, supplied by 3,066 sperm whales, represents well over half of this year's catch, since the only other whaler specializing in sperm whales is a smaller ship operated by the Japanese.

Soaps Shown at Foot Care Conference

EXHIBITS featuring soaps, fungicides, germicides, and deodorants for foot care were featured in the exhibits at the 56th annual Foot Care Conference, held February 15 to 18 at the Hotel Astor, New York, and sponsored by the Podiatry Society of the State of New York. Technical reports and symposiums, were included in the three day program.

Day-Baldwin, Newark, N. J., featured its series of "Mycoderm" products for use against fungus infections, including "Mycoderm Soap", containing sodium undecylenate. Dome Chemicals, Inc., New York, exhibited their fungicidal solution "Quatrasal", which contains five per cent salicylanilide, one per cent tetra alkyl quaternary ammonium pentachloro phenate (Hyamine 3258) and 94 per cent isopropyl alcohol. The literature at this booth included a reprint of a recent article by L. Schwartz, et al, in *Industrial Medicine*. Dr. Schwartz pointed out the "Hyamines" are quaternary ammonium compounds having marked fungicidal and antiseptic properties, as well as wetting, penetrating and detergent properties. They are recommended for treatment of superficial mycoses.

The antiseptic properties of the detergent "pHisohex", which contains three per cent hexachlorophene, or on the basis of its detergent content, 18.4 per cent hexachlorophene, were described in the exhibit by Winthrop-Stearns Inc., New York. The product is recommended for use in surgical scrub or wash, preoperative use on patients, dressing surgical wounds, or for minor injuries and abrasions.

Pedinol Laboratories, New York, featured a series of antiseptic, fungistatic, and deodorant preparations in their exhibit, including a sulfonated hydrogenated castor oil creme, "Hydrisonol", designed for sensitive skins, as a skin softener, and as a soap substitute. Another product by this firm said to have detergent and disinfectant properties is the "Pedinol Germicide", based on a "Goldicide" concentrate.

An antiseptic detergent, "Bactine", having bactericidal action, was exhibited by the Miles Laboratories, Inc., Elkhart, Indiana. The compound contains di-isobutyl cresoxy ethoxy ethyl dimethyl benzyl ammonium chloride; polyethylene glycol mono-iso-octyl phenyl ether, chlorthymol; propylene glycol; alcohol; camphor, menthol; and essential oils. It is slightly acid, pH of 5.5 to 6.5, has a low surface tension, and contains no mercury, iodine or phenol. The product is said to be a good antiseptic-cleanser, deodorant and fungicide, and suggested for use against athlete's foot, as a household disinfectant and hand disinfectant.

A highlight of the meeting was a banquet and show on February 16. Dr. M. A. Stevens, of the Kenny Institute of Hospitals of the City of New York, was the featured guest speaker.

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New Hooker Personnel

Hooker Electrochemical Company, Niagara Falls, recently announced the following technical appointments. Abram Davis has been employed as a research chemist in the development and research. He is a graduate of Lake Forest College and Illinois Institute of Technology. Also in the same department, Beryl B. McKown has been employed as a technician in the physical laboratory. Miss McKown had previously been associated with Glenn L. Martin Co. as a chemist, with Kraft Cheese Co. as a laboratory technician, and more recently at Oak Harbor High School, Washington, as a science teacher.

Thomas Hooker, a graduate of the University of Rochester and Massachusetts Institute of Technology, has been employed as chemical engineer in the engineering department. He previously had been in the employ of Pfaudler Co. and Distillation Products, Inc.

William F. Harvey, formerly an analytical chemist with Electrometallurgical Co., has been employed as a mechanical engineer, and Edward J. Kalota has been employed as a draftsman in the engineering department.

WHAT'S

One of two new shaving preparations of the House of Gourielli, New York, is active ozone brushless shave cream, which is claimed to take the sting out of shaving. There is also a lather cream. The brushless comes in green and white tube with matching green box and retails for $1.00.

New packages for the John A. Chew, Inc., New York line of carbon tetrachloride. From left to right are gallon and pint metal containers by Crown Can Co., Philadelphia, and one pound bottle by Hazel-Atlas Glass Co., Wheeling, W. Va. Bottle is two-color silk screen printed.

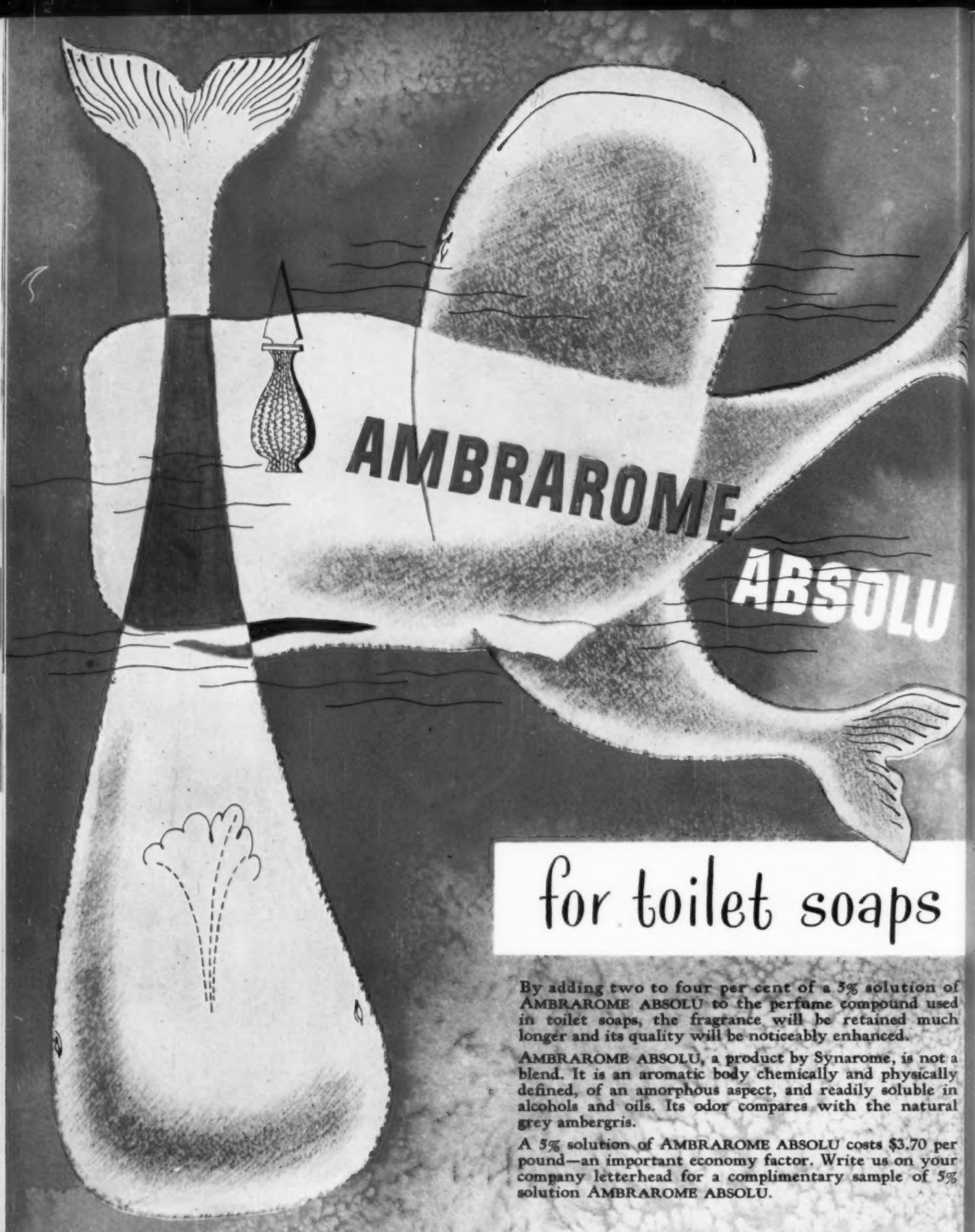
Newest additions to the Twi-Laq Chemical Co., Brooklyn, line are "Bran-U Rug and Upholstery Shampoo" and "Sun-Glo" stove, range and metal cleaner. The rug and upholstery cleaner retails for $2.49 a quart in concentrated form; $1.49 for 16 ounces and 98 cents for eight ounces. "Sun-Glo" is used for cleaning grease and grime from burners and drip pans of stoves. Both items are sold by Abraham & Straus, Brooklyn department store.

NEW?

A new line of para deodorant blocks containing chlorophyll will be introduced by I. Schneid, Inc., Atlanta, Ga., at the trade show and convention of the National Sanitary Supply Assn. being held at the Conrad Hilton Hotel, Chicago, Mar. 23-26. The line is being marketed to the jobbing trade under the trade name "Para-Phyll." This is understood to be the first time chlorophyll has been incorporated in paradichlorobenzene deodorant blocks. Chlorophyll is used in numerous odor control applications.

New, completely adjustable electric fan-operated air freshener announced recently by Surco Products, Inc., and distributed nationally by Scent-Flo Distributing Co., Pittsburgh. Made of aluminum, the new "Scent-Flo" deodorizer is available in red, green, silver and gold finishes. It is said to be the only adjustable deodorizer on the market. No installation is necessary, it can be plugged into any standard outlet.

New shampoo containing lanolin and hormones announced recently by Charles Antell, Inc., Baltimore, comes packaged with "Formula 9" hair treatment cream. Both products are being promoted extensively on radio and television advertising.



for toilet soaps

By adding two to four per cent of a 5% solution of AMBRAROME ABSOLU to the perfume compound used in toilet soaps, the fragrance will be retained much longer and its quality will be noticeably enhanced.

AMBRAROME ABSOLU, a product by Synarome, is not a blend. It is an aromatic body chemically and physically defined, of an amorphous aspect, and readily soluble in alcohols and oils. Its odor compares with the natural grey ambergris.

A 5% solution of AMBRAROME ABSOLU costs $3.70 per pound—an important economy factor. Write us on your company letterhead for a complimentary sample of 5% solution AMBRAROME ABSOLU.

BUSH AROMATICS

DIVISION OF THE DOW CHEMICAL COMPANY • 629 GROVE STREET • JERSEY CITY 2, N. J.

DOW CHEMICAL OF CANADA, LIMITED, TORONTO, CANADA

EXCLUSIVE SALES REPRESENTATIVES FOR SYNAROME IN THE UNITED STATES, CANADA AND CUBA.

DOW

News

Los Angeles Soap Elects

E. M. Fineout was recently elected president of White King Soap Co., sales organization of Los Angeles

E. M. FINEOUT

Soap Co., Los Angeles. Edward Douglas, Jr., was elected president, general manager and a member of the board of directors of Los Angeles Soap Co., to which Mr. Fineout has been elected board chairman and executive vice-president. They succeed Frank H. Merrill, who was president of both organizations until his death Oct. 12, last.

Paul C. Merrill, son of the late president, and associated with the company since 1922 was elected a director and vice-president of Los Angeles Soap Co. J. W. Beazley was named vice-president and secretary-treasurer of the company. He has been with the firm since 1921.

Bernard C. Hiss, an attorney, was elected to the board of Los Angeles Soap Co., other directors of which are Miss Annie M. Forthmann, Andrew K. Forthmann, Thomas A. J. Dockweiler, Victor H. Rossetti and H. Paul Grimm.

Mr. Fineout, who is vice-president for the far west of the Association of American Soap & Glycerine Producers, Inc., has been with Los Angeles Soap Co. since 1903, when he joined the firm as a shipping clerk. The new president of Los Angeles Soap Co. began with the firm as a bookkeeper in 1913.

George S. Harral Dies

George S. Harral, since 1922 Eastern sales representative for Allen B. Wrisley Co., Chicago, with headquarters at 347 Fifth Ave., New York, died Feb. 16, in Columbus Hospital, New York. He was 88 years old. Mr. Harral, a native of Bridgeport, Conn., made his home at 104 Elm Ave., Mount Vernon, N. Y., where he was on the board of trustees of the local Y.M.C.A. and a director of the Seabury Memorial home. His widow, the former Nellie Beardsley, survives.

P&G "Camay" Refund

A 25 cent refund on six regular size or four bath size cakes of "Camay" soap was announced recently by Procter & Gamble Co., Cincinnati. Refunds, limited to one per family, are available by sending in the necessary wrappers along with one of the coupons torn from counter cards now being displayed by dealers throughout the U. S. The offer is good through Sept. 30. Special advertising display material outlining the details of the promotion is being distributed by P&G salesmen.

Committee D-12 Meets

Several technical papers dealing with metal cleaning and the testing of detergents were to be presented at the annual meeting of Committee D-12 on soaps and other detergents of the American Society for Testing Materials, held Mar. 17 and 18, at the Park Sheraton Hotel, New York. In addition, a feature of the meeting was to be a symposium on statistical methods for the detergent laboratory. Part of the meeting was devoted to the reading of committee reports and discussions involving the research and standardization activities in the field of soaps and other detergents of Committee D-12.

Lee McKelvey V. P.

B. H. Lee has been named vice-president in charge of sales for the Alfred D. McKelvey Co., New York,

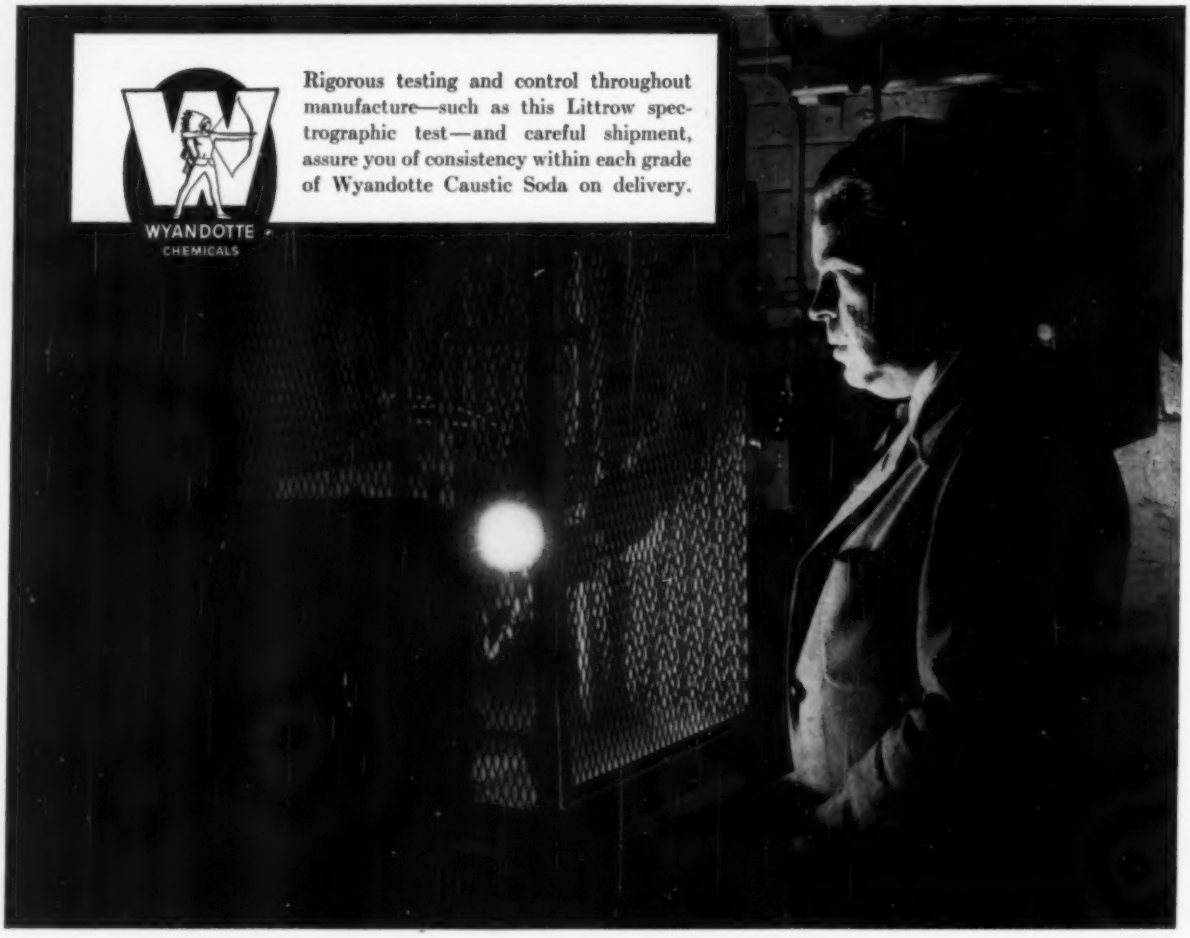
B. H. LEE

makers of Seaforth's men's toiletries, it was announced Feb. 29, by L. F. Bonham, president. McKelvey is a subsidiary of Vick Chemical Co. Mr. Lee joined Vick in 1936 as a sales trainee, subsequently becoming a member of the new product division. In 1945, he was advanced to the position of assistant to the president, Alfred D. McKelvey Co., and later was placed in charge of production and product development for that Vick subsidiary.

Mr. Bonham also announced the appointment of Henry O. Dow to the newly created post of field manager. Mr. Dow came to McKelvey from Personal Products Co., for which he was district manager of the New England area.

Gillam Expands Plant

Gillam Soap Works, Fort Worth, Tex., has added a new solvent extraction unit for treatment of bones and fat scrap at a cost of $42,000, according to Ernest O. Gillam, president, for the production of soap kettle greases. The company plans the addition of a fatty acid plant in the near future, according to Mr. Gillam.



Tests PROVE Wyandotte Mercury Cell Caustic as pure as reagent grades!

This naturally pure caustic soda needs no further purification for even the finest toilet soaps. There's a grade for *every* need:

For your soaps or synthetics, toilet or tallow — for batch or continuous saponification—you'll find the caustic soda best suited for you among the Wyandotte grades and forms.

Mercury Cell Caustic

The exceptional purity of our Mercury Cell Caustic, for instance, meets the strictest specifications. It is shipped in nickel drums (for pilot-plant use) and in "M.A.-2"-lined tank cars (on a commercial scale) to prevent iron pickup—arrives as pure as it is made!

Especially in the continuous process, this purity is important to prevent contamination of the catalyst.

Other grades and forms

Whatever your specifications, chances are that we can help you save on transportation, storage, or handling costs with one of the many grades and forms of Wyandotte Caustic. Why not consult the nearest Wyandotte District Office?

And if you'd like to make your own tests mentioned above, write for a free copy of our booklet, "Analysis of Caustic Soda, Soda Ash, Bicarbonate of Soda." *Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in Principal Cities.*

Wyandotte
CHEMICALS

Soap Sales Down, Syndets Up in '51

NON-LIQUID soap sales declined sharply in 1951, as compared with 1950, whereas sales of synthetic detergents increased last year, according to figures released recently by the Association of American Soap & Glycerine Producers, Inc., New York. Liquid soap sales were higher in 1951 than in 1950. Because the number of companies reporting in the Soap Associations' census vary, comparison of yearly totals is not exact.

Total non-liquid soap sales for 1951, as reported by 81 companies, amounted to 2,015,380,000 pounds worth $427,756,000, as against 2,439,-259,000 pounds, valued at $456,891,-000, reported by 85 companies in 1950. Reports from 53 manufacturers on which comparative figures are based, show 1951 sales of 1,931,199,000 pounds, 17 per cent under 1950, worth $414,948,000 which is six per cent under 1950 value.

Synthetic detergent totals received from 36 producers showed 1951 sales of 1,255,246,000 pounds, valued at $288,336,000 as compared with 1,093,188,000 pounds, worth $222,-837,000, reported by 34 companies in 1950.

Liquid soap sales totaled 5,268,-000 gallons, valued at $7,118,000, according to the figures of 52 producers, as against 5,709,000 gallons, worth $6,619,000, as reported by 56 companies in 1950. Comparative figures, based on reports received regularly from 35 liquid soap producers showed 1951 totals of 3,082,000 gallons, six per cent over 1950, and valued at $4,788,000, which was 19 per cent higher than in 1950.

Based on the comparative figurers issued by AASGP, tonnage sales in the 1951 fourth quarter were 27.5 per cent under that of the 1950 fourth quarter and four per cent lower than the previous quarter. Fourth quarter, 1951 sales of synthetic detergents were 318,453,00 pounds, as compared with 325,265,000 pounds for the previous quarter, and 275,489,000 pounds for the fourth quarter in 1950. Sales of liquid soap as reported by the 35 manufacturers who regularly supply figures showed a fourth quarter, 1951 total of 785,000 gallons, which was 6.4 per cent under the previous year's final quarter and 22.8 per cent above the third quarter, 1951

'51 Fat Output Up

World production in 1951 of the principal fats, oils and oilseeds—all in terms of fat and oil—was estimated recently by the U. S. Department of Agriculture's Office of Foreign Agricultural Relations to be 25,850,000 short tons. This is an increase of nearly two million tons from 1950, or eight per cent more. Compared with prewar, world production is indicated to be up 13 per cent. Thus, for the first time since the war, the output of fats and oils was sufficient to restore the world's per capita supply to approximately prewar levels. However, world trade in 1951 remained below prewar and may decline slightly in 1952.

Bigley Rejoins Wyandotte

Paul M. Bigley, who was granted a three-months' leave of absence from Wyandotte Chemicals Corp., Wyandotte, Mich., to serve with the Office of Price Stabilization, Washington, D. C., recently has been released to resume his duties with his company. Mr. Bigley, who is assistant to the general sales manager of the Michigan Alkali Division, upon special request voluntarily extended his service with OPS to the ten-month period ended Feb. 11.

PAUL M. BIGLEY

Soap Plant Trips

Trips through two soap manufacturing plants have been scheduled as part of the short course being conducted at Rutgers University, July 7—11, under the sponsorship of the American Oil Chemists Society. Plants to be visited are Lever Brothers Co., Edgewater, N. J.; Colgate-Palmolive-Peet Co., Jersey City, N. J.; Woburn Chemical Corp., Kearney, N. J., and J. Howard Smith Co., Port Newark, N. J. The trips are scheduled for Monday, July 7; Tuesday, July 8; Thursday, July 10, and Friday, July 11, starting at 2:00 p.m. Each trip will be limited to about 50 people.

The course will cover soap raw materials (July 7); soap processing (July 8), soap properties (July 9), surfactants and soaps (July 10), evaluation methods (July 11). There will be four speakers each morning for five days and dinner speakers four evenings of the week. Dr. Foster Dee Snell of Foster D. Snell, Inc., New York, is general chairman.

Carolina Line National

Carolina Co. of Pinehurst, N. C., recently announced the formation of a unit to distribute nationally its gift line of soaps and toiletries under the trade name of "Carolina Pine." Distribution will be made exclusively through gift and department stores by manufacturers' agents and salesmen. Until now the line has been sold only in the Carolinas by the company directly.

A-H Names Shine

The appointment of William M. Shine as director of market development for Arnold, Hoffman & Co., Providence, R. I., was announced recently by W. Chester Cobb, vice-president in charge of sales. Mr. Shine has been with the company since June, 1950, having previously been with General Aniline and Film Corp., New York, in sales development and research work. He is making his headquarters at the company's offices in 551 Fifth Ave., New York.

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Synthetics in Washing Machines

WE are reprinting below a copy of the letter sen out by Procter & Gamble Co., Cincinnati, to women's page editors. The letter is mentioned by Mr. Gale in his letter on the subject of our editorial dealing with synthetic detergents in clothes washing machines. His letter to SOAP appears on page 35.

"Dear .....:

We have noted that one or two writers on household equipment have advised homemakers that they had better use soaps rather than synthetic detergents in their washing machines. The assumption is that the new type of product may be causing service difficulties or even damaging the machine.

We are aware of this fear and have studied the problem carefully. Since there is a wide variety of synthetic detergents on the market and a great number of different washing machines, we think it would be very unwise of us to make any sweeping statements on one side of the debate or the other. We do think, however, that in all fairness we should share with editors interested in household subjects one or two points we have observed.

In the first place, most of the makers of washing machines actually *recommend* synthetic detergents. This includes all of the larger ones, and in fact includes manufacturers accounting for possibly 80% of total washing machine production. We believe you will agree they would not make this recommendation if they thought their machines would be in danger.

Secondly, in the development work our Product Service laboratories at Ivorydale have done on Tide, dating back to 1939, we have developed case histories on a large variety of washing machines. Most of these machines have been given an amount of wear equivalent to far more than the normal life expectancy of service in the home. In practically all of this work Tide, and more recently Cheer, have been the washing products used a good part of the time and we are convinced that these products are very compatible with practically all makes of washing machines.

We have no wish to urge you to cover this subject in your pages. That is not the purpose of this letter (and actually we see very little to be accomplished in that direction). We do think it proper to suggest hesitancy in advising against the use of synthetics for the following reasons.

First, a writer might find herself embarrassed if one of her readers, having been told in a magazine not to use synthetic detergents in washing machines, finds that the manufacturer of her particular make is actively recommending Tide or some other synthetic.

Secondly, in certain types of machines, particularly in hard water, a woman may encounter bothersome difficulties if she does not use a synthetic detergent due to the depositing of soap film on the clothes and in the washer.

Third, such a warning would be alarming women unnecessarily, judging by our own experience and the example of most manufacturers.

Procter & Gamble makes soaps as well as synthetic detergents. People are going to use our products in their washing machines to a reasonable extent either way. This letter is written simply because we thought it might be helpful to you to have our slant on the whole question.

If there is more specific information you would like, please let us know. Best of all, if you are around this way drop in and see us. We hope you know that you are always welcome.

Sincerely,
O. M. Gale, Associate Manager,
Division of Public Relations."

Bourjois Names Carter

Alfred J. Carter was recently appointed assistant sales manager of the Barbara Gould Division of Bourjois, Inc., New York. Mr. Carter was formerly with Procter & Gamble, Cincinnati, and Harriet Hubbard Ayer, New York.

TGA Convention Dates

The 17th annual convention of the Toilet Goods Association, will be held Monday through Wednesday, May 12, 13 and 14, at the Waldorf-Astoria Hotel, New York. The convention-reception committee is composed of: chairman, Lamson M. Scovill, Scovill Manufacturing Co.; Paul Alexander, *Drug & Cosmetic Industry;* Philip E. Haebler, Goldschmidt Chemical Corp.; M. Lemmermeyer, Aromatic Products, Inc.; Richard Malmstrom, N. I. Malmstrom Co.; Robert Miller, White Metal Manufacturing Co.; Eugene J. Moore, Richford Corp., and J. H. R. Stephenson, Givaudan-Delawanna, Inc.

The scientic Section of TGA will hold its next meeting on May 14, at the Waldorf-Astoria Hotel, New York, the third day of the annual convention.

The date of the Cecil Smith Memorial Golf Tournament has been changed from May 6 to May 8. Tournament and dinner will be held at the Winged Foot Golf Club in Mamaroneck, N. Y.

Hooker Advances Taylor

Donald L. Taylor has been appointed manager of general developments in the development and research department of Hooker Electrochemical Co., Buffalo, N. Y., according to a recent announcement by H. H. Babcock, vice president in charge of development and research. Mr. Taylor is concerned with general expansion of the company's operations such as investigation of new plant sites, raw material surveys, and other studies of a general economic nature. He has been with the company since 1936 as a chemical engineer and project leader. Mr. Taylor played a major part in plans for the new anhydrous ammonia plant which is nearly completed at Tacoma, Wash., and in the selection of Montague, Mich., as the site of a large chlorine-caustic soda plant soon to be under construction.

Alkali Test Proposed

A test for the effect of alkali on various types of printed packaging materials as proposed by the Alkali Test subcommittee of Printed Packaging Materials committee (1951) was announced recently by the Packaging Institute, New York. It is to determine the effect of alkaline materials on printed packaging materials such as paper, wrappers, labels, liners, containers, etc. The proposed alkali test which covers such substances as detergents, lye, soap, soap powders, etc., is a spot reaction test to produce rapidly an indication of the susceptibility of a printed package to alkaline contents or substances with which it may come in contact. It does not, however, replace the six-month storage test which, for safety, should always be carried out, even when the results of the quick alkali test show that the printed package is presumably safe from discoloration by alkali.

The type of test proposed originated at Colgate-Palmolive-Peet Co., Jersey City, and is used extensively there.

Bon Ami '51 Earnings

Bon Ami Co. and subsidiaries, New York, recently reported a net profit of $238,828 for 1951, as compared with $331,855 in 1950. Earnings per class A share in 1951 were $2.52, as against $3.51 in 1950. Profit before taxes last year was $418,028, compared with $491,355 in 1950. Income taxes for 1951 were $179,200, as against $159,500 in the previous year. Class A dividends of $189,166 were paid in 1951, as against $378,-332 in 1950. Last year no class B dividend was paid; in 1950 it was $100,000.

Canada Soap Output

Canadian factories produced 231,894,000 pounds of soap with a factory selling value of $38,656,000 in 1950, an increase of 17,259,514 pounds and $419,017 over 1949's 214,634,486 pounds and $38,236,983 the Bureau of Statistics reported recently. More soap powders and more toilet, shaving, liquid, textile and mill soaps were produced in 1950, but figures for soap chips and flakes, bar laundry and household soaps, castile and soft soaps showed declines from the previous year. Production of synthetic detergents was 51,753,000 pounds valued at $9,101,000, a jump of 14,529,730 pounds and $1,316,620 from 1949's 37,223,270 pounds and $7,784,380.

Production of soap powders in household packages increased to 98,858,000 pounds from 84,830,257, and in bulk to 9,838,000 pounds from 7,406,815. Production of soap chips and flakes in household packages decreased to 16,070,000 pounds from 17,736,647, and in bulk to 13,089,000 pounds from 14,145,399.

Toilet soap production in 1950 was 40,375,000 pounds compared with 36,307,335 pounds in 1949, while liquid soap production rose from 10,276,209 pounds to 11,256,000. Total production of shaving soaps in 1950 was 3,211,000 pounds compared to 2,979,775 pounds in 1949, an increase of 231,225 pounds.

In 1950 a total of 142 factories in Canada made soaps, washing compounds or cleaning preparations as their main products, and production from these works was valued at $66,048,105 or 5.8 per cent more than the output value of $62,398,211 from the 143 establishments in 1949. Employees numbered 3,735 compared with 3,637 in 1949, while salaries and wages rose to $10,339,733 from the $9,373,882 total of the previous year.

Oakite in New Quarters

Oakite Products, Inc., New York, recently occupied new and larger space at 19 Rector Street. The new office space covers about 30,000 square feet on all of two floors with the exception of one small unit. The chemical research and technical service departments continue at 22 Thames St.

Russell White Dies

Russell White, 77, retired director and general manager of Lever Brothers Co., New York, died in Concord, N. H., Feb. 28. A former resident of Boston, Mr. White made his home since his retirement in 1936 in Contoocook, N. H. He is survived by his wife, Agnes, and a son, Russell, Jr., of Candia, N. H.

P & G Coupon Deals

Procter & Gamble Co., Cincinnati, are currently offering a special coupon worth 20 cents with the purchase of two bottles of regular "Joy." The consumer mails in the certificate found on the cartons of "Joy" and P & G remits the coupon. The company is also offering 10 cents off on two packages of "Ivory Flakes," and has recently announced a coupon deal on "Camay" soap.

New P&G Canada Quarters

W. E. Williams, president of Procter & Gamble Co. of Canada, Ltd., Toronto, recently dedicated the company's new headquarters at 1320 Young St. Mr. Williams said that all profits made by the company in Canada since 1946 were reinvested in the form of additional manufacturing facilities. During the same period the company's annual payroll and investment had tripled, and the number of its employees doubled.

Some 200 Canadian and U. S. government, business, and civic leaders attended the dedication, which was followed by a luncheon. George J. Haering, U. S. Consul at Toronto, and W. L. Lingle, vice-president in charge of overseas operations of the United States company, joined with Mr. Williams in the dedication.

Mr. Haering, paying tribute to the business principles of the company quoted a recent survey of the American Institute of Management rating P & G first in management standards among 3000 concerns.

Kearny Names Ercklentz

E. W. Ercklentz has been named vice-president in charge of sales for Kearny Manufacturing Co., Kearny, N. J., it was announced recently. William R. Fox, Providence, R. I., is now the New England representative.

New U. S. Bottlers Bulletin

A bulletin covering the new rotary rinser and cleaner of U. S. Bottlers Machinery Co., Chicago, was announced recently. It is available by request from the company at 4019 North Rockwell Street, Chicago 18.

Edward S. Bassett, secretary of Cowles Chemical Co., Cleveland, receiving a gold pin for 30 years service with the company. Robert F. Huntley, vice-president and general manager, made the presentation.

McDonald Joins Kelite

The appointment of Louis McDonald as director of its development and control laboratories was announced

LOUIS McDONALD

recently by Kelite Products, Inc., Los Angeles. Mr. McDonald attended the University of Virginia and Princeton University, and previously was connected with National Aniline Division of Allied Chemical and Dye Corp., New York, and Dodge Chemical Co., among others. He is a member of the American Chemical Society, the American Society for Testing Materials and the American Oil Chemists' Society. He is making his headquarters in Los Angeles.

Employers Elect Oleson

Wrisley B. Oleson, president of the Allen B. Wrisley Co., Chicago, was recently re-elected president of the Employers Association of Chicago, for his second one-year term. The organization represents 163 industries in the Chicago area in the formation of policies on labor and other matters.

Chicago's position as a chemical manufacturing center was portrayed in a lengthy Sunday feature article in the Chicago *Tribune*, Feb. 10. The overall industry there has some 600 strictly chemical producing firms, according to the article. Employees number 45,000 and wages are over $100 million a year. No estimate was attempted of the value of the vast output.

In the soap field the Allen B. Wrisley Co. received special attention, along with Lever Brothers Co. and Procter & Gamble. Shampoos and hairdressing products of Helene Curtis Industries, Inc., were mentioned and the growth of Victor Chemical Works from a two-man plant to an organization producing over 150 different industrial chemicals at plants located in seven states was sketched.

The cleaner and disinfectant business of Diversey Corp. and the insecticide manufacturing operations of Velsicol Corp. were mentioned.

Hardesty Appoints Carlin

W. C. Hardesty Co., New York, recently announced the appointment of William J. Carlin to its fatty acid sales staff. Mr. Carlin has a bachelor of chemistry degree from Brooklyn Polytechnic Institute and formerly was with E. F. Drew & Co., New York. He is covering the Middle Atlantic States.

Representing Lueders

William Cairns of 505 Independence Ave., Philadelphia 26, is now representing George Lueders & Co., New York perfuming materials producer, in the Atlantic Seaboard states, it was announced recently by F. J. Lueders, president. Mr. Cairns is making his headquarters in Philadelphia.

In addition, Lueders announced that Tom F. Green of 1445 Clairborne Ave., Shreveport, La., is representing the firm in the southern states.

Cosmetic Chemists Meet

The Chicago Chapter of the Society of Cosmetic Chemists held its March 11 meeting in Henrici's Restaurant, Merchandise Mart, Chicago. Gus Kass, assistant research director, Helen Curtis Industries, spoke on "Hair Coloring and Hair Coloring Preparations."

Reports Soap Sales

U. S. Sanitary Specialties Co., Chicago, reported recently that it had sold enough soap last year to wash 565 million pairs of hands and enough floor cleaner to take care of 1,142,960,000 square feet of floor space. These are just two facts from a multitude of others in the company's annual report, distributed recently to employees and others.

Advances Sewall Andrews

Appointment of Sewall D. Andrews as general manager of the chemical division of General Mills, Inc.,

SEWALL ANDREWS

Minneapolis was announced late last month by Whitney Eastman, division president. Mr. Andrews, who has served as director of sales, continues to head that activity, and in addition assumes responsibility for all chemical division operations. Before joining the division he served as director of purchases. Mr. Andrews has been with General Mills for 20 years.

Tour Snell Laboratories

Tours of the laboratories of Foster D. Snell, Inc., New York, were made Feb. 12, by 35 members of the Chemistry Teachers' Club of New York and by five internationally famous food chemists from the Netherlands. The teachers saw some of the latest equipment used to make rapid analytical determinations, as well as observing how radio isotopes are used in commercial research and testing of compounds and materials.

The food chemists are on a three month tour of the U. S. under the auspices of the Mutual Security Agency (successor to E.C.A.) They visited the U. S. as part of a program for international exchange of technicians in order to increase understanding, cooperation and exchange of scientific ideas and "know-how". Latest methods used in the nutritional and food technology fields as they are applied in industrial research today were observed and described at the Snell laboratories.

Cuticura Fund Revealed

As a result of deathbed instructions of George R. White, president of Cuticura Corp., Malden, Mass., that his company forever give to charity two out of every three dollars it made, nearly $30,000,000 has been donated to hospitals, museums and other Boston and Massachusetts institutions in the past 30 years, it was revealed recently. The secret bequests became known to the public only recently because Mr. White requested that the fund be withheld from public knowledge until after the thirtieth anniversary of his death, Jan. 27, 1922.

Details of the humanitarian fund were announced Feb. 17 by Dr. Samuel M. Best, president of Cuticura Corp., which makes soaps, shampoos, shaving cream, ointment and other toilet products. Mr. Best's announcement was issued jointly by William C. Hamilton, vice-president and Francis M. Putnam, assistant to the president.

Mr. Hamilton explained the origin of the fund. He said that in 1920 Mr. Best, inspired by the principles of one of the founders of the corporation, Mrs. Sarah Potter, persuaded Mr. White to formulate the fund. Two years later Mr. White called a meeting of officers and trustees of Cuticura Corp. and informed them of his plan to turn over $2 out of every $3 in net profits to the humanitarian fund. He decreed that regardless how many millions of dollars the corporation would pour into humanitarian endeavors of one sort or another, their philanthropic work was to continue quietly. The philanthropies will continue, officers of the corporation stated. Mr. White's business career began with a Boston drug store that he founded in 1879.

Deleamont to Maschmeijer

A. Maschmeijer, Jr., Inc., New York, announced recently the appointment of Pierre T. Deleamont as sales representative to the cosmetic and perfume industries. Mr. Deleamont was born and educated in Switzerland where, before coming to the United States, he was associated with a large producer of aromatics.

Predicts Detergent Output

C. P. Neidig of White, Weld & Co., Philadelphia, predicted at the Chemical Market Research Association's meeting Feb. 28, at the Hotel Roosevelt, New York that production of synthetic detergents would total 2,500,000,000 pounds and possibly reach 3,000,000,000 pounds by 1960. Mr. Neidig also said that synthetics, now accounting for 50 per cent of sales of packaged detergents, would probably account for as much as 75 per cent to 80 per cent in a few years.

The meeting was told by G. D. Bieber of Eastern Gas & Fuel Associates, New York, that among the coal-tar chemicals benzene and naphthalene were expected to enjoy the greatest growth. Mr. Bieber said that benzene sales might rise from 260,000,000 gallons in 1951 to 430,000,000 gallons in 1956.

Soap Evaluation Booklet

Copies of a booklet containing "Papers on Evaluation of Soaps and Detergents", which were presented at the March, 1951 meeting of Committee D-12 on soaps and other detergents of the American Society for Testing Materials, Philadelphia, were issued recently. The booklet, which also bears the designation Special Technical Publication No. 115 is available for $1.50 by writing the A. S. T. M. at 1916 Race St., Philadelphia 3, Pa.

Papers included in the booklet, which also carries an introduction by J. C. Harris of Monsanto Chemical Co., Dayton, O., are:

"Practical Evaluation of Soiled Test Pieces" by R. B. Mitchell of American Institute of Laundering, Joliet, Ill.; "Measurement of the Adsorption of Anion-Active Detergents by Materials Commonly Washed," by William A. Fessler of Solvay Process Division, Allied Chemical & Dye Corp., Hopewell, Va.; "Laboratory Performance Test for Detergents in Continuous Wool Scouring" by E. A. Leonard of Alexander Smith and Sons Carpet Co., Yonkers, N. Y.; "A Metal Cleaning Test Using Radioactive Stearic Acid as Soil," by J. W. Hensley, H. A. Skinner and H. R. Suter of Wyandotte Chemicals Corp., Wyandotte, Mich.; "An In Vivo Method for Determining the Degerming Efficiency of Soaps Containing Hexachlorophene" by Arthur R. Cade of Givaudan-Delawanna, Inc., Delawanna, N. J.; "The Mechanism of the Wetting of Textiles," by I. J. Gruntfest of Rohm and Haas Co., Philadelphia; "Summaries of Test Procedures," by Leonard Shapiro, Syntron, Inc., Ashton, R. I.; "The Draves (Weighted Skein) Wetting Test Method" by Carl Z. Draves of General Dyestuff Corp., New York; "The Tape Wetting Test Method," by Leonard Shapiro; "The Canvas Disk Method" by O. M. Morgan of National Aniline Division, Allied Chemical & Dye Corp., New York; "The Hydrometer Wetting Test Method," by H. B. Walker of E. F. Houghton & Co., Philadelphia.

Photograph below was taken during the recent 21st sales and staff dinner of Magnus, Mabee & Reynard, Inc., New York essential oil firm. The affair was held at Toots Shor's restaurant, New York.

Our Coconut Fatty Acids Merit a Doctor's Degree

Like a well-qualified M.D., our coconut fatty acids go through a highly specialized processing period before beginning to practice in your manufacturing operation.

For example, our Special grade has had a major portion of the lower acids (caproic, caprylic and capric) removed to give a product particularly suited for resin, detergent and cosmetic manufacture.

And our Regular grade—a single distilled acid—is so carefully controlled that it is equal to many double distilled grades, and is of course less expensive.

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P & G Builds New Plant

The newly formed Ouida Investment Co. took title recently to a whole city block in North St. Louis as the site for a new buildnig to be leased for a long term to Procter & Gamble Co., Cincinnati. Construction of the building has already been started. Completion is expected by September.

The ground acquired is bounded north by East Taylor Ave., east by Prescott Ave., south by Carrie Ave., and west by Ouida Ave.

The building, with 300 feet of frontage and 345 feet deep, will face Carrie Ave. and run north to a new railroad spur leading off the Terminal Railroad, also to be constructed. The postal address will be 725 Carrie Ave.

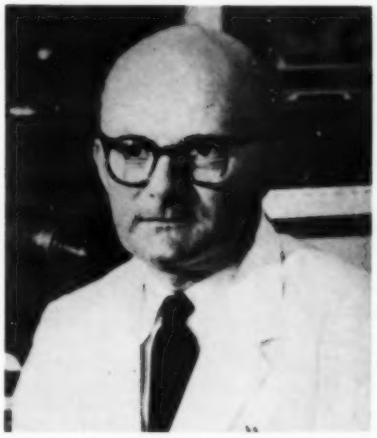
The new plant will have 103,500 square feet of space under roof, with loading docks at the rear, or north side, for 12 railroad cars, and loading docks in the front for trucks. The docks constitute an additional 10,000 square feet of space. There will also be a parking area and a lawn in front of the building. The building will be of warehouse type construction of reinforced concrete. It will provide space for offices, and have sprinkler protection, concrete slab, built-up roof.

Estimated cost of the project was not reported, but Procter & Gamble's 15-year lease was said to involve rental aggregating nearly $1,000,000. The plant will improve the soap company's shipping and distribution facilities in the area.

Dr. Naves Speaks in U. S.

Dr. Yves-René Naves, research associate of L. Givaudan & Cie., S. A., Vernier-Geneva, Switzerland, arrived March 12th for a three week visit in the United States. Dr. Naves will attend the 121st National Meeting of the American Chemical Society in Buffalo, where he will be presented the Fritzsche Award for 1952. He will give a paper entitled, "Optical Methods and Terpene Molecular Structures," before the Division of Organic Chemistry of the A.C.S.

In New York, Dr. Naves is also scheduled to deliver a lecture before a joint meeting of the American Section of the Société de Chimie Industrielle and the French Engineers in the U. S. This lecture, which will be



DR. YVES-RENE NAVES

given in French, is entitled, "L'Influence du Chimiste sur l'Evolution des Industries de Matières de Parfumerie." The meeting will be held on March 20th, at 5:45 p.m., at the Cultural Services Building of the French Embassy, 934 Fifth Avenue, and will be followed by a reception. The industry is cordially invited to attend.

"Surf" for U.K., France

Unilever, Ltd., London, parent company of Lever Brothers Co., New York, is introducing the heavy duty synthetic detergent "Surf" in England. It will compete with "Tide," produced by Thomas G. Hedley Co., British affiliate of Procter & Gamble, Cincinnati. According to a Paris report, Unilever is also planning shortly to launch a French version of "Surf."

Purex Declares Dividend

Directors of Purex Corp., South Gate, Calif., recently declared the usual quarterly dividend of 15 cents a share on the common stock, payable March 31 to stock of record March 15.

Cosmetic Assn. Elects

The California Cosmetic Association recently elected the following officers: president, John E. Danley, Merle Norman Cosmetics; first vice-president, Gene Salee, Gene Salee, Inc.; second vice-president, A. C. Schaefer, Glenway Co.; secretary, Lyman Borkman, Colonial Dames, Inc.; treasurer, Merton W. Taylor, Avon Products, Inc.

Trustees elected include: J. M. Brinkerhoff, Studio Girl—Hollywood, Inc.; Lucile Bullock, Physicians Formula; Alan Coghlan, Nethercutt Laboratories; Davis Factor, Max Factor & Co., Arnold L. Lewis, Studio Cosmetics; Henry W. Miller, Henry W. Miller Cosmetic Co.; Carl Mitchell, "42" Products, Ltd.; H. R. Schmidlapp, Shor Laboratory. Edward Petersen of Felton Chemical Co. was elected associate chairman, and J. R. Simpson of McNerney Chemical Corp. was named associate secretary-treasurer. Gail B. Selig is counsel, and Lillian D. Nelson is executive secretary.

The officers were installed at a recent dinner, at which Dr. Ernest Guenther, vice-president and technical director of Fritzsche Brothers, Inc., New York, spoke on "The Latest Developments in the Essential Oil Industry."

The association will hold luncheons on the first Wednesday of each month, and dinners in January, May and September.

Philip C. Moreau, Technical Service Representative, Corn Products Sales Co., New York. The contest involving the winner of the naming of the Emery ball-man trademark currently being used. Emery's New York district manager, H. D. Armitage, presented Mr. Moreau with the leather two-suiter luggage.

NEW Trade Marks

THE following trade-mark was published in a recent issue of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, a fee of ten dollars must accompany each notice of opposition.

Trisol—This for detergents and soaps. Filed Apr. 8, 1946 by Eaton-Clark Co., Detroit. Claims use since Oct., 1923.

The following trade marks are published in compliance with section 13 (a) of the Trade Mark Act of 1946. Notice of opposition must be filed within 30 days of publication and a fee of $25 must accompany each notice of opposition.

A 4 Star Beauty Aid—This for shampoo. Filed July 10, 1950 by Rapidol Dist. Corp., Hyde Park, N. Y. Claims use since May 1, 1935.

G-L Syntrate—This for synthetic liquid detergent for mopping floors. Filed July 14, 1950 by Grace-Lee Products, Inc., Minneapolis. Claims use since May 3, 1950.

Fitch—This for hair shampoo. Filed Sept. 15, 1950 by Grove Laboratories, Inc., St. Louis. Claims use since 1893.

Godan—This for hair shampoo in liquid form. Filed Sept. 18, 1950 by La Maur, Inc., Minneapolis. Claims use since June 28, 1950.

Sweetheart — This for toilet soap. Filed Oct. 30, 1950 by Manhattan Soap Co., New York. Claims use since 1903.

Labisol—This for solution for cleaning needles on knitting machines. Filed Jan. 30, 1950 by Reading Testing Laboratories, Reading, Pa. Claims use since Sept. 27, 1950.

True—This for machine dishwashing compound. Filed Mar. 6, 1951 by Virginia-Carolina Chemical Corp., Richmond, Va. Claims use since Oct. 18, 1949.

Tra-Fax—This for self polishing floor wax. Filed Mar. 18, 1948 by Service Industries, Philadelphia. Claims use since Oct. 2, 1946.

Penny-Brite — This for metal cleaning and polishing compound. Filed June 6, 1950 by Kenerson-Edgar Co., Cleveland. Claims use since Nov. 1949.

Endurance.— This for liquid cleaning and polishing compound for automobiles and other lacquered veneers. Filed Oct. 5, 1950 by Western Tire Auto Stores, Inc., Chicago. Claims use since Apr. 10, 1933.

Seyco—This for surface active chemicals. Filed Apr. 5, 1949 by Sedel-Wooley & Co., Atlanta. Claims use since Jan. 1, 1924.

Max-Bait— This for chemicals for rodenticide. Filed Mar. 31, 1951 by Research Products Co., Kansas City, Mo. Claims use since Dec. 28, 1950.

Bright Sail—This for liquid air purifier and deodorant. Filed June 1, 1951 by Great Atlantic and Pacific Tea Co., New York. Claims use since Aug., 1948.

Malathon—This for insecticide. Filed June 13, 1951 by American Cyanamid Co., New York. Claims use since June 5, 1951.

West—This for deodorizer and soap containers. Filed Mar. 22, 1951 by West Disinfecting Co., Long Island City, N. Y. Claims use since Dec. 1, 1950.

Pentox—This for ready-mixed, paint containing pentachlorophenol for inhibiting the action of insects, fungi and bacteria. Filed Oct. 22, 1949 by Osmose Wood Preserving Co. of America, Buffalo, N. Y. Claims use since Oct. 10, 1949.

Lemon—This for liquid chemical cleanser for general household cleaning and for use on the hands. Filed Jan. 26, 1950 by Kleenzit Corp., Brownsville, Tenn. Claims use since July 15, 1948.

Modern Methods — This for a paint and woodwork cleaner. Filed Feb. 16, 1950 by Modern Methods, Inc., Atlanta. Claims use since Mar. 6, 1947.

Meyer's Trump—This for preparation for cleaning tile, marble, porcelain, enamel and metallic surfaces. Filed Mar. 6, 1950 by H. B. Meyer & Son, Dallas, Tex. Claims use since May 7, 1949.

Car-X — This for liquid car wash. Filed Mar. 15, 1950 by Car-X Co., Jackson Heights, N. Y. Claims use since Dec. 22, 1949.

Stane — This for toilet soap, cream, soapless and coconut oil shampoos. Filed Apr. 5, 1950 by The S F Laboratories, Boston Claims use since Oct. 1, 1948.

Nocopon — This for powdered detergent chemical compound for cleaning textiles. Filed July 21, 1950 by Nocon Products Corp., New York. Claims use since June 1, 1949.

Kalene — This for waterless hand cleaning paste. Filed Aug. 12, 1950 by Kalene Corp., Minneapolis, Minn. Claims use since Apr. 6, 1950.

Spot Be-Gone—This for liquid dry cleaner for spotting delicate fabrics. Filed Sept. 30, 1950 by Century Products Corp., Seattle, Wash. Claims use since May 29, 1950.

Bath Corral—This for soap and soap powder. Filed Nov. 18, 1950 by Daggett and Ramsdell, Inc., Newark, N. J. Claims use since Oct. 1950.

Silent Maid — This for toilet bowl cleaner with incidental deodorizing properties. Filed Mar. 3, 1951 by Stanley Home Products, Inc. Westfield, Mass. Claims use since Dec. 7, 1950.

Koppers—This for insecticides and disinfectants. Filed Apr. 5, 1949 by Koppers Co., Pittsburgh, Pa. Claims use since Aug. 10, 1948.

Max 80-20 — This for insecticides. Filed Mar. 31, 1951 by Research Products Co., Kansas City, Mo. Claims use since June 26, 1950.

Max Spot-Kill—This for insecticides. Filed Mar. 31, 1951 by Research Products Co., Kansas City, Mo. Claims use since Jan. 31, 1950.

Cross Country—This for insecticides. Filed May 19, 1951 by Sears, Roebuck and Co., Chicago. Claims use since July 15, 1948.

Dieldrex I — This for insecticides. Filed June 15, 1951 by Shell Chemical Corp., New York. Claims use since Sept. 18, 1950.

Ratero — This for rodenticide. Filed June 23, 1951 by Tobal Products, Inc., Chicago. Claims use since June 14, 1951.

Kwykwax—This for floor wax. Filed Mar. 26, 1951 by West Disinfecting Co., Long Island City, New York. Claims use since Nov. 1931.

Marv—This for synthetic detergents. Filed July 30, 1947 by Allied Home Products Corp., Beloit, Wis. Claims use since June 2, 1947.

Babbitt's—This for soap. Filed Dec. 10, 1947 by Armour and Co., Chicago. Claims use since 1851.

Kelvar—This for synthetic detergent compound. Filed Nov. 5, 1949 by Wyandotte Chemicals Corp., Wyandotte, Mich. Claims use since Apr. 26, 1948.

Dri-Brite—This for liquid wax. Filed Dec. 21, 1949 by Boyle-Midway, Inc., New York. Claims use since Jan. 24, 1930.

Bug Bomb—This for insecticides. Filed Dec. 21, 1950 by Bridgeport Brass Co., Bridgeport, Conn. Claims use since Nov. 1, 1950.

Real Kill—This for insecticides. Filed Feb. 10, 1951 by Cook Chemical Co., Kansas City, Mo. Claims use since Jan. 22, 1951.

Air-Gly — This for aerosol bombs containing disinfectants, deodorants, sanitizers and air fresheners. Filed Mar. 7, 1951 by Hysan Products Co., Chicago. Claims use since Feb. 25, 1950.

Hy-Yield—This for insecticides. Filed Mar. 26, 1951 by Hy-Yield Fertilizer Co., Bonham, Tex. Claims use since Feb. 15, 1951.

Voo-Doo—This for rodenticide. Filed Apr. 12, 1951 by Xterminator Products Corp., Jersey City, N. J. Claims use since Oct. 4, 1950.

Cryogel — This for aluminum soaps. Filed June 11, 1951 by Mallinckrodt Chemical Works, St. Louis. Claims use since Apr. 17, 1951.

Bids and AWARDS

FSS Insecticide Awards

In a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C., Trio Chemical Works, Brooklyn, received an award with a bid of 65 cents a pound for 75 pounds of insecticide, and Barco Chemical Products Co., Chicago, was the successful bidder on 1,600 pounds of insecticide, with a bid of 49 cents a pound.

Scouring Compound Bids

Low bids on 197,000 pounds of scouring compound for a, Newport; b, Philadelphia; c, Norfolk; d, Yukon; e, Pensacola; f, Corpus Christi; g, Great Lakes; h, Irwin; i, Oakland; j, Seattle; and k, Bremerton, in a recent opening for miscellaneous supplies by the Navy Purchasing Office, New York City, were submitted by: Pal Products Manufacturing Co., Brooklyn, a, 5.6 cents, b, 5.1 cents, c, 5.3 cents, d, 6.9 cents, e, 6.9 cents, f, 8.1 cents, g, 5.6 cents, h, 9.5 cents, i, 7.5 cents, j, 9.5 cents, k, 9.5 cents, and f.o.b. Brooklyn, 4.5 cents; Continental Soap Corp., Chicago, g, 5.55 cents, i, 7.14 cents, j, 7.14 cents, and f.o.b. Chicago, 5.3 cents; B. T. Babbitt Co., New York, g, 5.55 cents, f.o.b. Albany, N. Y., b & c, and f.o.b. Chicago, g, 5.3 cents; Imperial Products Co., h, 9.5 cents, i, 9.5 cents, j, 9.5 cents, k, 9.5 cents, f.o.b. Philadelphia, 6.1 cents.

FSS Shoe Polish Award

Virginia Specialty Corp., Lynchburg, Va., received the award on 4,800 containers of shoe polish with a bid of 4.4 cents in a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C.

Navy Soap Powder Bids

Among low bidders on 7,050,000 pounds of soap powder in a recent opening for miscellaneous supplies by the Navy Purchasing Office, New York City, for a, Boston; b, Newport; c, Davisville; d, Brooklyn; e, Bayonne; f, Philadelphia; g, Norfolk, h, Portsmouth, Va.; i, Washington, D. C.; j, Charleston, S. C.; k, Cherry Point; l, Pensacola; m, Flour Bluff; n, Great Lakes; o, San Diego; p, Irwin; q, Oakland; r, Mare Island; s, Seattle, t, Bremerton, were: Continental Soap Corp., Chicago, destination a, 4.64 cents, b, 4.64 cents, c, 4.64 cents, d, 4.63 cents, e, 4.63 cents, f, 4.59 cents, g, 4.52 cents, h, 4.63 cents, i, 4.55 cents, j, 4.87 cents, k, 4.77 cents, l, 4.83 cents, m, 5.14 cents, n, 4.12 cents o, 5.46 cents p, 5.46 cents, q, 5.46 cents, r, 5.69 cents, s, 5.46 cents, t, 5.46 cents, and f.o.b. Chicago 3.6 cents; Kamen Soap Products, New York, destination a, 4.74 cents, b, 4.74 cents, c, 4.94 cents, d, 4.34 cents, e, 4.44 cents f, 4.94 cents, g, 4.84 cents, h, 4.94, i through k, 4.99 cents, l, 5.3 cents, m, 5.74 cents n, 4.94 cents, o through t, 5.64 cents, and f.o.b. Barberton, Ohio, 3.83 cents; Swift & Co., destination o, 4.87 cents, f.o.b. Cambridge, Mass., a through i, 5.31 cents, f.o.b. Chicago, j through n, 5.75 cents, f.o.b. Los Angeles, o, 4.64 cents.

AQMC Soap Awards

In a recent opening for miscellaneous supplies by the Army Quartermaster Corps, New York City, Lever Brothers Co., New York, received an award with a bid of $35,872 for 584,000 pounds of laundry soap. Others receiving awards were Continental Soap Corp., Chicago, with a bid of $40,779.30 for 438,000 pounds of laundry soap, and Gillam Soap Works, Fort Worth, Tex., with a bid of $9,050 for 100,000 pounds.

Scouring Compound Bids

Low bids on 322,600 pounds of scouring compound for a, Marford, Va., and b, Barstow, Calif., in a recent opening for miscellaneous supplies by the New York Navy Purchasing Office were submitted by Chemical Manufacturing and Distributing Co., destination a, 3.845 cents, b, 5.37 cents, and f.o.b. Easton, Pa., 3.19 cents; G. H. Packwood Manufacturing Co., destination a, 3.95 cents, b, 4.85 cents, f.o.b. St. Louis, 2.96 cents; Wyandotte Chemicals Corp., Wyandotte, Mich., destination b, 4.95 cents, and f.o.b. Los Angeles, 4.63 cents.

FSS Award to Potomac

Potomac Products Corp., Washington, D. C., received the award on 700 gallons of paint and varnish remover with a bid of $1.73 a gallon in a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C.

Low FSS Soap Powder Bids

Low bidder on 19,935 pounds of soap powder in a recent opening for miscellaneous supplies by the New York Federal Supply Service was National Milling and Chemical Co., Philadelphia. National's bid was 4.11 cents. Other low bids were 4.4 cents by Continental Soap Corp., Chicago, 4.26 cents by East Coast Soap Corp., Brooklyn, and 4.3 cents by Stevens Soap Corp., Brooklyn.

Navy Laundry Soap Bids

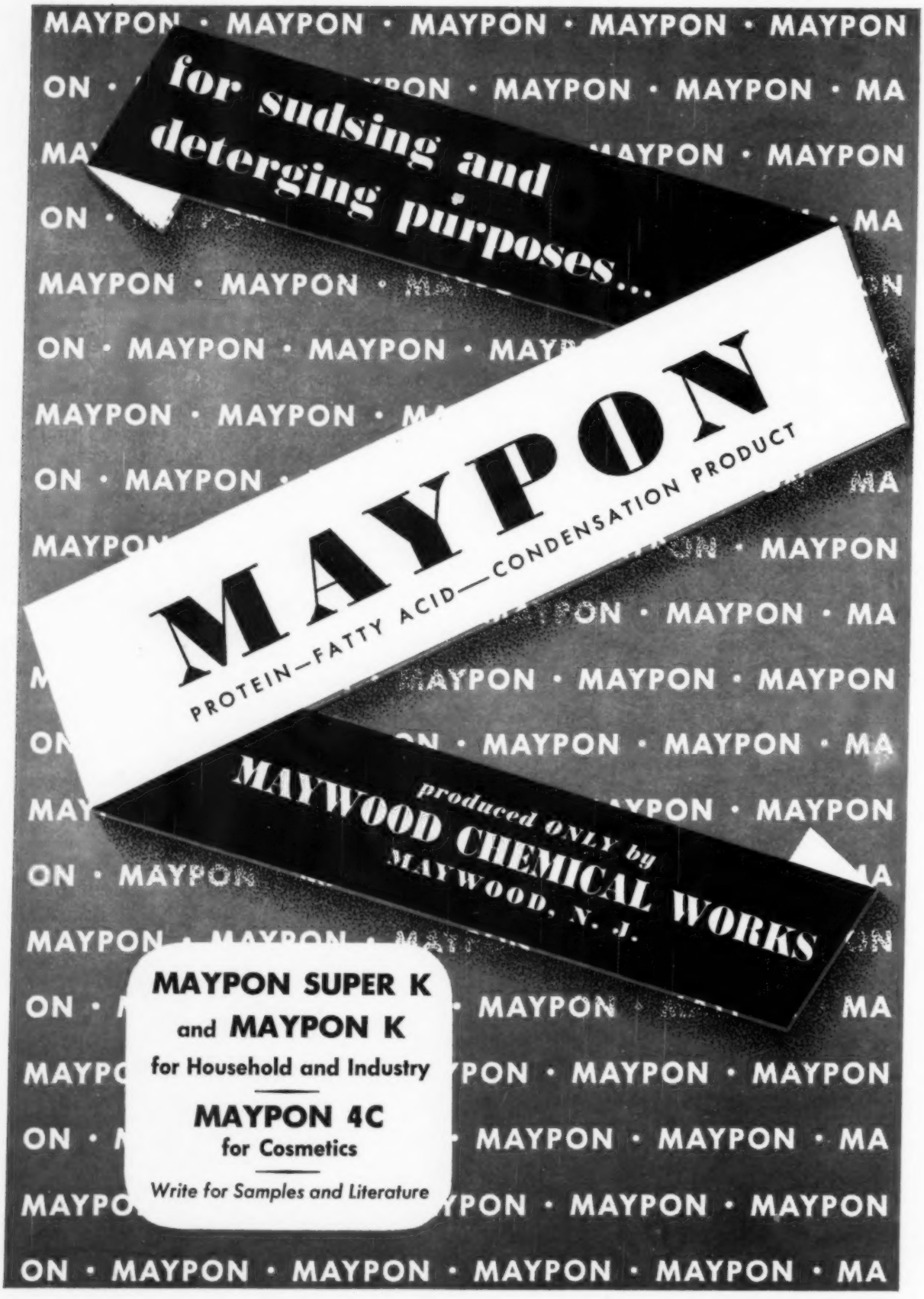
Low bids on 80,000 pounds of laundry soap in recent opening for miscellaneous supplies by the New York Navy Purchasing Office, New York, were submitted by: Fels & Co., Philadelphia, 5.211 cents, railroad and 5.126 cents, truck, 4.822 cents f.o.b. Philadelphia; Kamen Soap Products Co., New York, 5.4 cents, f.o.b. Barberton, O., 4.9 cents.

Low Soft Soap Bids

Harley Soap Co., Philadelphia was lowest bidder on 4,816 25-pound drums of soft soap with a bid of $2.29, f.o.b. origin, in a recent opening for various supplies by the Brooklyn Armed Services Medical Procurement Agency. Other low bids were $2.445 by Crystal Soap and Chemical Co., Philadelphia, and $2.30 by National Chemical Laboratories of Pennsylvania, Philadelphia.

Breck on Bank Board

Edward J. Breck, vice-president and general manager of John H. Breck, Inc., Springfield, Mass., was recently appointed to the board of director of the Springfield National Bank.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Note that the operator has not yet placed his left hand on the second air control. Therefore the air ram is locked. BOTH hands must operate BOTH air controls SIMULTANEOUSLY in order to release the ram.

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IT'S SAFER because the air ram cannot move until the operator presses down **both right and left hand air controls** at the same time. Neither hand is free while air ram is in action. There is no foot control. Neither can the operator block off one hand control and operate the press with the other hand.

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FEATURES OF THIS NEW MACHINE

1. Single or multiple power strokes.
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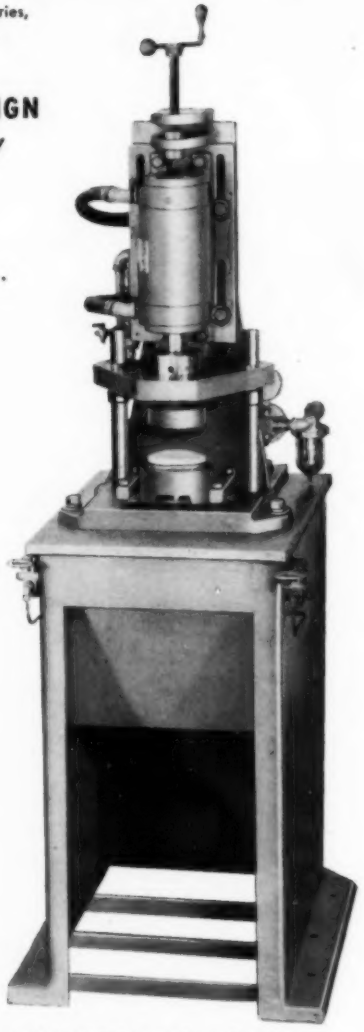

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Fatty Alcohols

WHEN fatty alcohols were first marketed in commercial quantities some twenty-five years ago, they were derived from fatty acids, which generally are produced from natural fats and oils. In recent years, however, not only the higher molecular monobasic acids, but also primary alcohols of higher molecular weights, with and without side chains, are manufactured synthetically from raw materials, far removed from natural fats and oils. These also are referred to as "fatty alcohols."

Actually, the term "fatty alcohols" should be applied only to those primary alcohols which have an even number of carbon atoms in a straight chain, from C_8 to C_{20}, and are made from natural fats (and natural wax-like substances such as sperm oil and spermaceti). Alcohols made from synthetic fatty acids, or by the Oxo process (i.e., by reacting carbon monoxide and hydrogen with olefines) should be so identified. These synthesized products contain a certain percentage of primary alcohols having an uneven number of carbon atoms and also side chains, neither of which ever occur in the alcohols made from natural fats and waxes. The sulfates of the synthesized alcohols should be called "alkyl sulfates" rather than "fatty alcohol sulfates," even though the sulfates of secondary alcohols produced from olefines and sulfuric acid are, at the time, not available on the market in their non-sulfonated form.

The raw materials used in the production of fatty alcohols are: sperm oil, spermaceti, coconut oil, and palm kernel oil. Sperm oil is not a glyceride, and therefore, not a true fat. It consists primarily of esters of oleic, palmitic and stearic acid with oleyl, cetyl and stearyl alcohols. Spermaceti essentially is a palmitic acid ester of cetyl alchohol. Both coconut oil and palm kernel oil are natural oils and, therefore, true glycerides.

Sperm oil is used primarily in the production of oleyl alcohol, but it can also be used in the manufacture of cetyl and stearyl alcohol by correct treatment and hydrogenation. Coconut oil and palm kernel oil are the best available materials for the production of lauryl alcohol and myristyl alcohol. They can also be used to make cetyl and stearyl alcohol.

The fatty alcohols may be produced by reduction with metallic sodium, by the Bouveault-Blanc process; or by catalytic hydrogenation under high pressure (200-300 atm., and 200°-300° C.). Sperm oil and spermaceti may be treated by still a third method, that is, hydrolysis by saponification and subsequent distillation. In applying the Bouveault-Blanc process to sperm oil, a slight modification of the operation is necessary.

The process used in producing fatty alcohols is an important factor in determining the properties of the resulting alcohols. Commercial grades of lauryl alcohols made by the Bouveault-Blanc process may have a high iodine value; in addition, they may also contain some unreacted fatty acids. In the high pressure hydro-generation method, the products may contain a high amount of hydrocarbons, if the process is not observed carefully, and hydrogeneration is allowed to go too far.

The commercial fatty alcohols are generally a mixture of alcohols, with a slightly higher amount of one alcohol than of the others. The correct actual composition of commercially available cetyl and stearyl alcohols has been indicated in only a few cases. The consumer has to presuppose that the mixture, when called "cetyl alcohol" by the manufacturer contains larger quantities of the C_{16} alcohol than of the C_{18} alcohol. Modern fractionation methods, however, have made it possible to produce cetyl and stearyl alcohol with a degree of purity of more than 90 per cent.

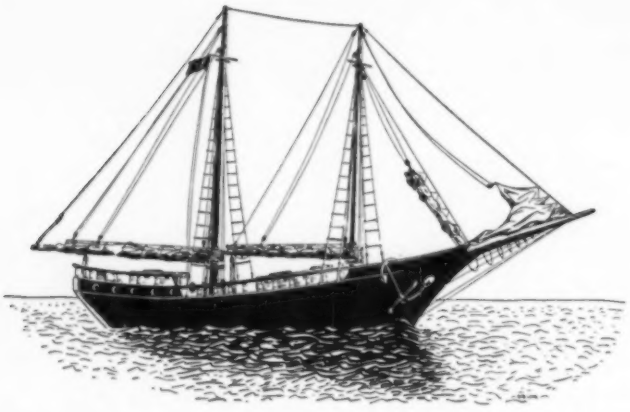
Cetyl and stearyl alcohols made of sperm oil may contain more oleyl alcohol than is desirable. The stearyl alcohol made of sperm oil may also contain a certain quantity of the saturated C_{20} alcohol. On the other hand, stearyl and cetyl alcohols made of coconut and palm kernel oils may also contain fraction of C_{12} (lauryl) and the C_{14} (myristyl) alcohols.

Oleyl alcohol is made almost exclusively from sperm oil. A higher yield is obtained by the sodium reduction than by the saponification method, but even the very best grades of oleyl alcohol are not pure, and contain seven to 10 per cent cetyl and stearyl alcohols. Oleyl alcohols with an iodine value of 76 or more are used only for special purposes. Mixtures of oleyl alcohols with cetyl and stearyl alcohols, having iodine values of 25 to 75 are the most important commercially available fatty alcohols produced from sperm oil.

Although the iodine value is a fair indication of the purity of any given oleyl alcohol, an even more important criterion is the solidification or turbidity point. The following is a review of some characteristics of chemically pure fatty alcohols:

		melting point	*solidification point*	*iodine value*
octyl	C_8	195.5	—16	..
decyl	C_{10}	232	7	..
lauryl	C_{12}	255-259	24	..
myristyl	C_{14}	286	38	..
cetyl	C_{16}	318-320	49	..
stearyl	C_{18}	344	58.5	..
oleyl (unsatd.)	C_{18}	340	1	95

Commercial lauryl alcohols usually do not contain more than 45 per cent lauryl alcohol C_{12}, and are in gen-



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eral mixtures of C_6, C_{10}, C_{12}, C_{14}, C_{16}, and C_{18}. However, two technical grades of alcohol, having 61 and 55 per cent lauryl alcohol, respectively, are marketed for certain purposes.

The lauryl sulfates produced from lauryl alcohols are used in making light duty detergents, shampoos and hair conditioning preparations. Since lauryl alcohol is made from coconut and palm kernel oils, the price of this alcohol is based on the situation of coconut and palm kernel oils in the world market. Cetyl and stearyl alcohols are particularly important in the preparation of heavy duty and built detergents. L. Schon. *Soap Perfumery and Cosmetics* 25, No. 1, 65-70 (1952).

Salt Wandering in Soap

The analyses of soaps dried by natural drying indicated that sodium carbonate wandered to the surface of the sample, and that sodium chloride withdrew to the center. During artificial drying at 45°, sodium chloride goes to the center, but sodium carbonate stops in the intermediate zone. *Olii minerali, grassi e saponi* 28, 62-3 (1951) through *Chemical Abstracts*.

Polyvinyl Alcohol Cleaners

Polyvinyl alcohol is aqueous solution (five to 10 per cent) or as a paste is said to be useful as a cleaning agent. A solution applied smoothly to the skin and drying as a thin film, will, upon removal, take up the dirt with it. Polyvinyl alcohol is also said to be useful as an additive to soap. Its gel-producing properties makes it suitable for use in shaving creams. One soap composition incorporating polyvinyl alcohol is as follows: 150 grams of soap solution, mixed with 20 grams of a 10 per cent aqueous solution of a highly polymeric polyvinyl alcohol. Soap sheets or films may be made according to the following formula:

	parts
toilet (or other soap equivalent)	77
polyvinyl alcohol, partially esterified with acetic acid	19
glycerine (as a plasticizer)	4

T. Ruemele, *Manufacturing Chemist* 23, No. 1, 25 (1952)

New, Improved Deodorant Soap

ONE of the main reasons most bactericides cannot be used with soap to impart bactericidal action, is that they become inactive in combination with soaps, and also because the addition of such bactericides has a deleterious effect on the fragrance of the soap. A newly developed bactericide known as "Wirkstoff FS 64" (manufactured in Germany) is said to maintain its bactericidal action even in a soap medium; does not produce any specific odor; nor impair the foaming capacity solubility of the soap, and imparts a deodorizing action to the soap.

"FS 64" was developed in German laboratories. It is a combination of stearates and glycerin, and the active bactericidal ingredient is "F 10". The following is an approximate analysis of "FS 64":

	per cent
glyceride	80.4
free stearic acid	8.5
potassium stearate	5.8
glycerine	4.9
activators and catalyzers and "F 10"	.4

"F 10" is a formaldehyde derivative, but unlike formaldehyde, does not separate albumen even in high concentrations. It does not contain methyl, does not polymerize, is tasteless and odorless in use; is stable to light, and active even in small amounts. The following tabulates some properties of "F 10":

pH	6.0
acidity	22.6
ester number	125.9
saponification value	148.5
melting point	50°C.

A three per cent concentration of "FS 64" in soap is said to eliminate perspiration odors. "FS 64" added to household soaps and detergents imparts a deodorizing and bactericidal effect, and may be of importance in treatment of linen for babies, sick people, professional clothing, etc.

"FS 64" is said also to be useful in dentifrices, cosmetic products, lotions, face powders, creams, etc. For dentifrices, the addition of one per cent is adequate. For creams, and lotions, .1 to 1.0 per cent may be used, depending on the consistency and action required. P. G. Hartge, *The Alchimist* 5, No. 11, 315-318 (1951).

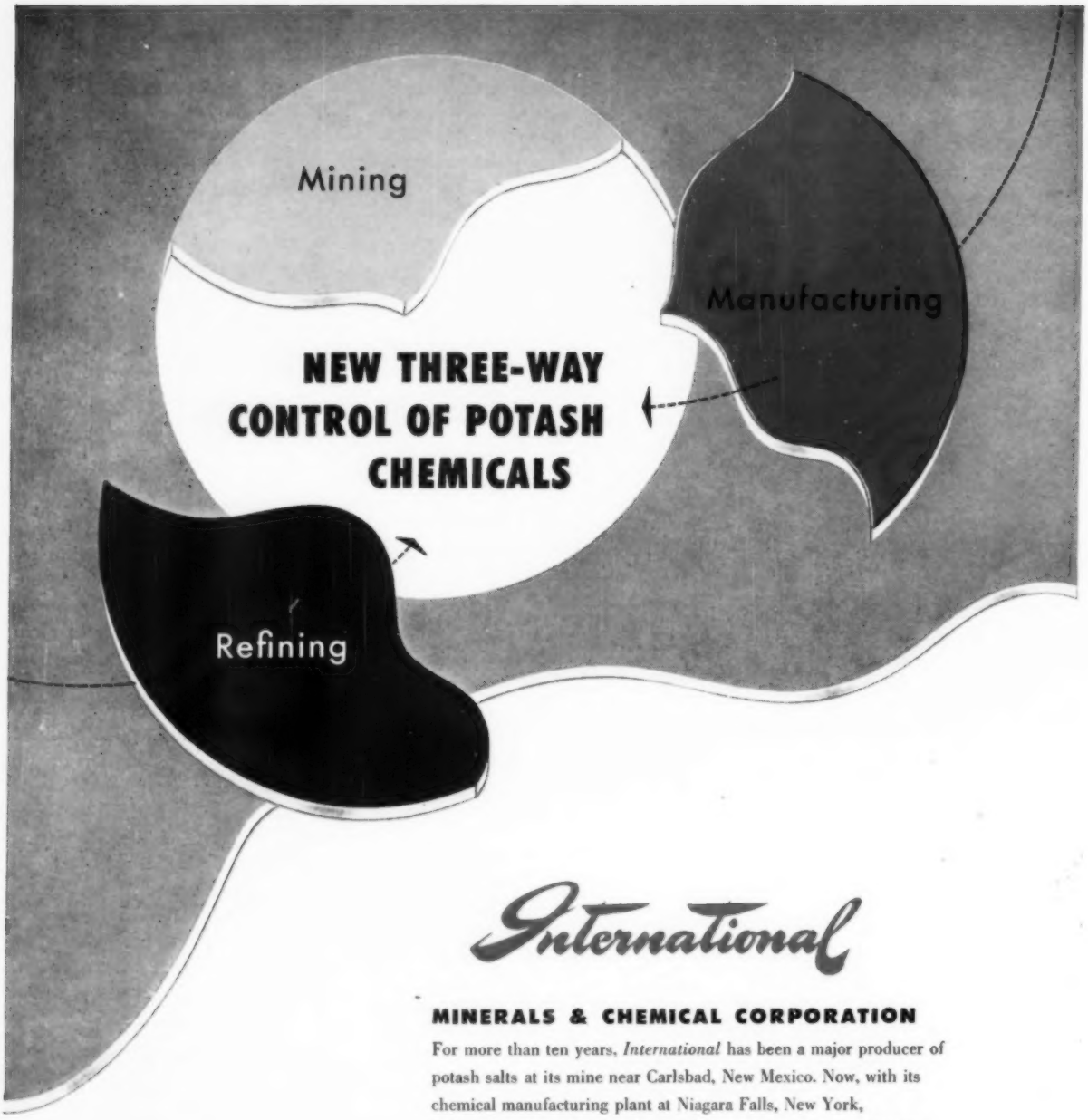
X-ray Patterns of Soap

The sodium salts of the saturated fatty acids may exist in a larger number of different states at room temperature, giving rise to x-ray patterns which differ at various modifications, but which are substantially the same for all samples prepared within the field of formation of a given state, studied at room temperature and constant relative humidity. The formation of the multiplicity of forms requires the presence of water during the processing of systems at higher temperatures before cooling to room temperature. Studies along these lines have indicated that the zeta and epsilon modifications cannot be stoichiometric hydrates, but are probably solid solutions. Despite certain limitations, several of these patterns could be interpreted in terms of this hypothesis, in accounting for changes in spacing occuring on drying zeta and epsilon samples over phosphorous pentoxide, and on changing the chain length of soap in the modification. R.D. Vold, J.D. Grandine, and H. Schott *J. Phys. Chem.* 56, No. 1, 128-136 (1952).

Kieselguhr for Filtering

The use of kieselguhr as a filter aid for industrial purposes depends considerably on its physical and chemical properties. Its capacity to clarify liquids is due to the kieselguhr being composed of irregularly shaped porous skeletons of diatoms, from one to 10 microns in size. In industrial grades of kieselguhr, these skeletons are clustered together forming much larger grains. When a very fine cloudiness is to be removed, it is recommended that the kieselguhr be mixed with a small amount of asbestos of about .018 microns.

The specifications of pure kieselguhr include the absence of organic



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and mineral impurities, and a pH of 7, kieselguhr has a much lower absorptive capacity than activated charcoal, which is an advantage in that no chemical alteration of the filtered material by selective absorption is likely.

Kieselguhr retains liquids up to five times its own weight, and the fluid can be regained by compression. In filter presses, the filtration surface should first be covered with a layer of 200 to 500 grams of kieselguhr per square meter. Subsequently, the turbid liquid is pumped slowly through this layer, while 200 to 500 grams per 100 liters are mixed in. *R.v.D. Heide, Chem* Z. 75, No. 28, 516 through *Industrial Chemist* 28, No. 324, 35-36 (1952).

Sulfosuccinate Surfactants

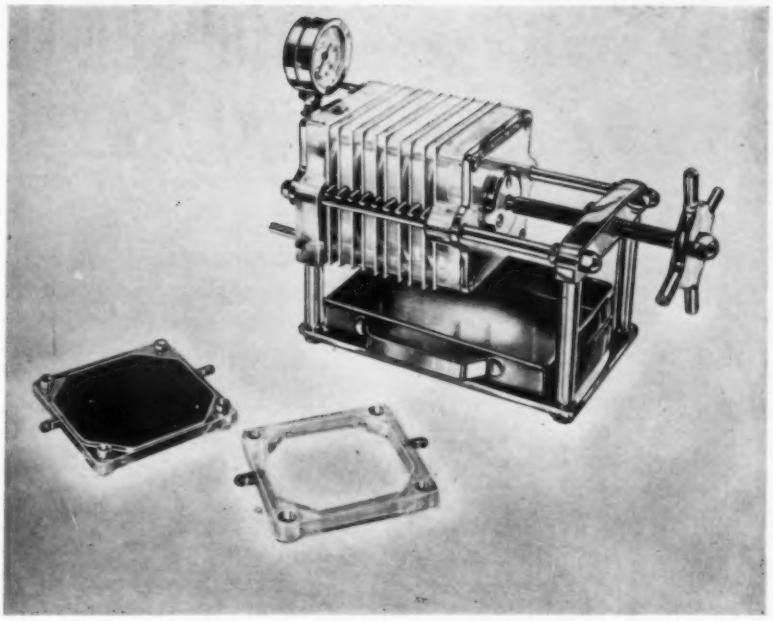
Three new esters of sodium sulfosuccinic acid are now available commercially from American Cyanamid Co., New York. These surface active agents are stable at high temperatures, losing none of their properties above 100° C., and are useful in preparing oil-in-water emulsions. The products may be useful in the wet-finishing of textiles and manufacture of insecticides. They may be used also in paint manufacture and the preparation of agricultural sprays and powders for wetting and dispersing.

New MRM Labeler

The development of a new, fully automatic labeler was announced recently by MRM Co., Brooklyn. It has an operating capacity of up to 75 labels per minute, and can be adjusted to accomodate containers of varying sizes by an unskilled operator. The new labeler handles containers from fractional ounces to gallons, applying labels accurately and cleanly. Labels as small as postage stamps up to five inches wide by six inches high can be handled. A special vertical adjustment control accomodates containers of any height and also prevents containers from spinning thus assuring good registration.

Labels of paper or metal foil can be applied to any type carton including cardboard, tin, plastic, metal or glass. If no container enters the delivery star, the vacuum automatically cuts out.

The new labeler will be shown and demonstrated at the 21st National Packaging Exposition in Atlantic City, N. J., Apr. 1—4. H. D. Mans, president, F. Rossetti, engineer and R. J. Dealy of the sales department of MRM will be present.

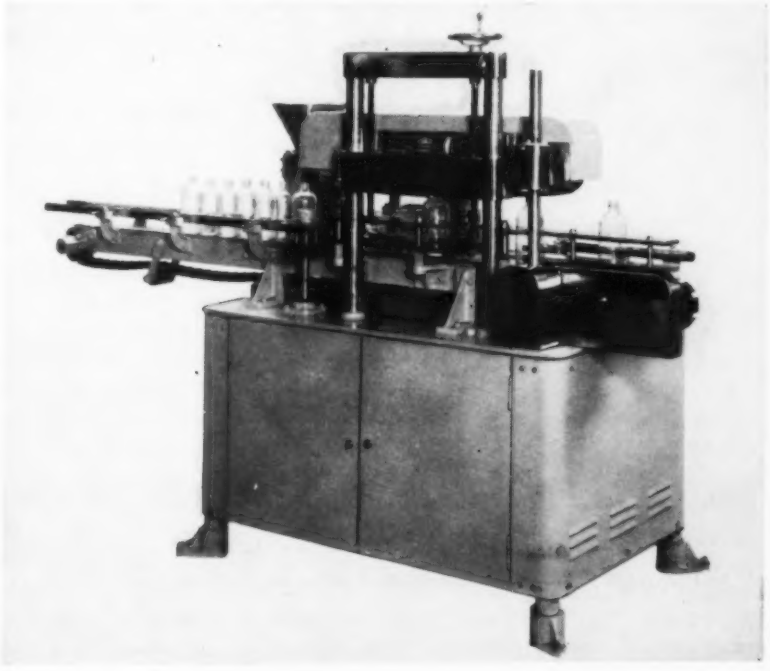


New Ertel Lucite laboratory filter

New Plastic Filter

The development of a new laboratory filter of Lucite that lends itself to visual study of the filtration cycle was announced recently by Ertel Engineering Corp., Kingston, N. Y. Double filtration can be achieved with a dividing head in the new, small multiple-disk unit. The filter comes in two

New fully automatic labeler of MRM

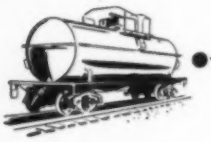


The + in Hooker Caustic Soda *is SERVICE*

When you buy a basic chemical like caustic soda, *service* is an important factor in determining your source of supply. As a basic producer, Hooker offers you these advantages:

1. Caustic soda of high purity, low in iron and sulfates . . .

and



2. Modern equipment for loading and shipping to maintain that purity from our plant to the user's plant . . .

+

An experienced technical service staff to help you use and handle caustic soda.

To you this means minimum processing costs through elimination of variations in quality from shipment to shipment. To make sure that Hooker Caustic reaches you as pure as it leaves us, we coat Hooker tank cars with a special protective lining. Each car is completely insulated and equipped with a heating device to make handling and unloading uniform the year around.

\+ You can reduce processing costs further through the safe and efficient handling of caustic soda. This is where the specialized knowledge of our technical service staff can help you.

For analyses and specifications on Hooker Caustic Soda, write on your business letterhead for Technical Data Sheet No. 735.

Hooker Caustic Soda is sold in solid, flake or liquid form. Liquid is supplied in 50% and 73% concentration.

From the Salt of the Earth

HOOKER ELECTROCHEMICAL COMPANY

BUFFALO AVENUE & UNION STREET, NIAGARA FALLS, N. Y.

NEW YORK, N. Y. • WILMINGTON, CALIF. • TACOMA, WASH.

HOOKER CHEMICALS®

10-1846

SODIUM SULFIDE • SODIUM SULFHYDRATE • SODIUM BENZOATE • CHLORINE • MURIATIC ACID • PARADICHLOROBENZENE • MONOCHLOROBENZENE

sizes: four inches square, with an approximate filtration area of 11 square inches per sheet and eight inches square with a filtration area of about 52 square inches per sheet. The filters are available with a choice of circulator systems.

New MM&R Catalog

A first-quarter, 1952, catalog and price list of its line of essential oils, aromatic chemicals, certified colors, flavoring materials and related products was issued recently by Magnus, Mabee & Reynard, Inc., New York. Essential oil prices in the current catalog are temporarily deleted because of abnormal conditions, and quotations are furnished on request, according to the company. In addition to information on products, the catalog lists names and addresses of domestic sales representatives. Copies are available on request by writing the company at 16 Desbrosses St., New York 13, N. Y.

N. Y. Aromatics Price List

A price list of some of its perfume oils, deodorant oils, masking agents and neutralizers was issued recently by New York Aromatics Corp., New York. The new list shows perfuming materials for such products as creams, lotions, shampoos, insecticide sprays, para blocks and crystals, moth sprays, room deodorant oils, soaps and detergents. The company maintains its laboratories in Highbridge, N. J.

New Lipac rotary vacuum filling machine

New Bowen Laboratory

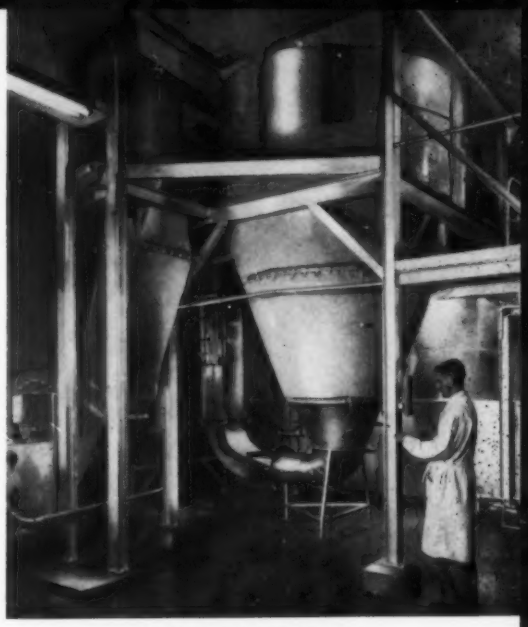
Completion of its new test laboratory in North Branch, N. J., was announced recently by Bowen Engineering, Inc., manufacturers of spray drying equipment. The laboratory is equipped with latest design spray dryer. Tests can be made on both units at temperatures up to 1,000°F. using direct products of combustion as the drying medium. Tests can also be made at lower temperature limits using indirect heating where the material requires this treatment. Facilities also include a laboratory for product evaluation, refrigerator room for storage of material requiring reduced temperatures and separate powder collection room.

New Bottling Machine

The availability of a new line of bottling machinery was announced recently by Lipac, Inc., New York. Featured is a new, 16-valve, fully automatic rotary vacuum filling machine. The filler can handle up to 150 containers per minute depending on the size of the container and the liquid being filled. The filler takes from fractional ounce to gallon size containers of glass, tin or plastic. All metal contact parts are of stainless steel. The machine is designed to handle a variety of types of materials such as floor waxes, shampoos, oils and other liquids, including those that foam or are viscous. The company also produces special equipment for filling one and five gallon tin containers with a metered amount of liquid or for handling corrosive products.

New Multi-Clean Booklet

A new floor manual, "Your Floors and How to Maintain Them", was issued recently by Multi-Clean Products, Inc., St. Paul, Minn. The illustrated 40-page plus cover booklet covers the importance of proper floor care, types of flooring materials and their maintenance, as well as shampooing of carpets and rugs. Types of floor maintenance equipment and attachments made by Multi-Clean are illustrated and described in the booklet. Photographs of the company's plant facilities are also shown. Types of flooring discussed include asphalt tile, terrazzo and magnesite, rubber tile, wood and linoleum.



Bowen spray drying test laboratory in North Branch, N. J.

Data on Cyanoacetic Acid

An expanded and revised technical data bulletin on cyanoacetic acid was issued recently by Kay-Fries Chemicals, Inc., New York. The bulletin on cyanoacetic acid, which is said to be growing in importance as an intermediary in chemical syntheses, is similar to other technical bulletins issued by the company. It contains not only a listing of properties and of specifications, but also suggested applications and a synopsis of work reported in the literature.

Mineral Spirits Washer

A new mineral spirits washer designed especially for one-man operation was placed on the market recently by Detrex Corp., Detroit. By the use of a return-type conveyor, the loading and unloading of the machine has been made a simple, one-station operation. The cleaning cycle of the equipment consists of two washing stages and a forced air blow-off. Easily adjusted spray nozzles provide an even, all-over coverage of the parts being cleaned, regardless of irregularities of shape. A series of safety switches are incorporated in the machine. The washer is designed to clean a variety of standard production parts, and it can be adapted to many special cleaning applications.

PRODUCTION *Clinic*

By E. G. Thomssen, Ph.D.

THE agitation or mixing of liquids usually is simpler than powder blending. Considerations involved include miscibility of the liquids, whether or not emulsification is desirable, viscosity, inflammability and control of evaporation. Types of liquids handled in the sanitary chemical industry fall into four main categories: The mixing of two or more fluid substances either to form a mixture or a solution; the making of a dispersion of solids in liquids the solubilizing of solids in liquids, and the production of liquid emulsions. Gas-liquid solutions are encountered only rarely.

In choosing equipment for mixing liquids, the type of liquid products to be made must be considered. In order to simplify the classification of liquid mixers or agitators, we will consider them as: 1—Paddle agitators; 2 — propeller agitators; 3 — turbine mixers; 4—circulating mixers. To subdivide these four categories it should be noted that agitators may be top entering, side entering or bottom entering, as well as fixed or portable types. Portable types are used more frequently in smaller plants than in larger ones for all kinds of liquid mixing.

The most common paddle impeller consists of an overhead or top entering vertical shaft to which various types of paddle or beater arms are attached. As the paddles rotate they agitate the liquid in a suitable vessel. The speed at which the shaft turns; the shape and pitch of the paddles; the number of paddles determine the efficiency of the mixing operation. In other cases, two sets of paddles are used. One may be stationary, the other rotating, or each set may run in opposite directions.

Propeller agitators are preferred to paddle mixers in certain cases. They do not cause as much splashing; mix more quietly, and usually require less power. Very good agitation is obtained with propeller agitators. Among the types of propeller blades used are the standard

DR. THOMSSEN

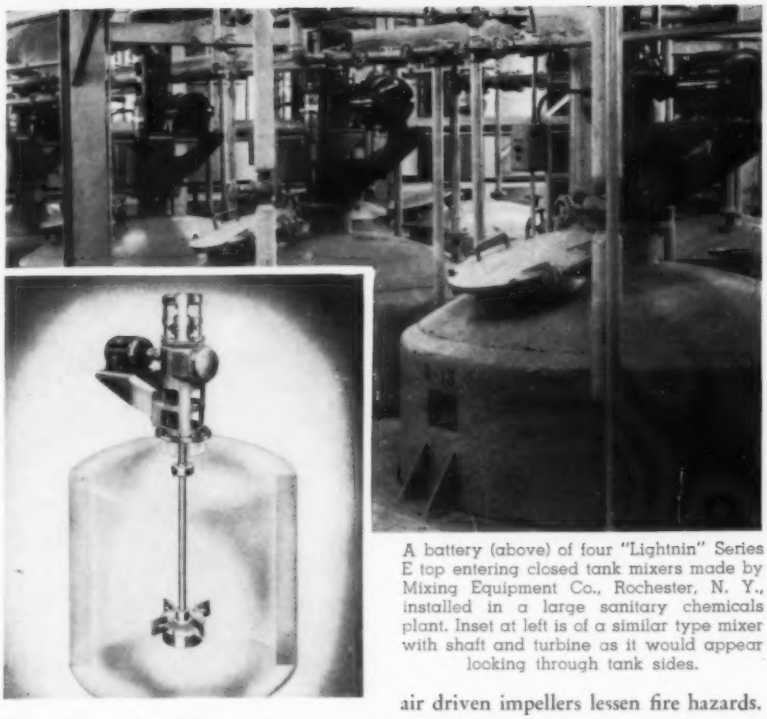
two or three blade models, a three blade type with a ring guard or stabilizing fins, and a two blade type for freeing itself, if long fibers are mixed. Some blades are serrated to cut more readily into lumpy solids being put into solution. Folding blades are built available for use where small tank openings in closed tanks present a problem. One or more of these blades may be attached to the revolving shaft.

Electric or air driven portable mixers built either for direct or gear drives usually employ one or several propeller blades on the mixing shaft, Side and bottom entering mixers also feature similar propeller blade arrangements. At times, where better agitation is required and the blades mix in the center of a vessel, it is advisable to install one or more baffles to increase the mixing action.

Turbine mixers are installed most frequently at the bottom of the mixing vessel. Various types of turbines are used. These include lifter, flat blade and disperser types. Turbine type mixers are well adapted to the making of such emulsions as liquid floor wax. In this case it is necessary at first to mix intimately small quantities of the ingredients of the batch, then gradually increase the volume. Since the turbine mixer is low down, it handles small or large volume readily. Dispersions of heavy solids in liquids are also handled with greater facility with a turbine impeller.

Circulating mixing of liquids is done most simply with a pump. It is customary to circulate the liquid from the bottom into the top of the vessel containing it. This method, though slower than direct agitation, is quite satisfactory for making many fluid preparations. In

A C-4 side-entrance, direct motor driven mixer made by International Engineering, Inc. of Dayton, O. It features ball bearing thrust.



A battery (above) of four "Lightnin" Series E top entering closed tank mixers made by Mixing Equipment Co., Rochester, N. Y., installed in a large sanitary chemicals plant. Inset at left is of a similar type mixer with shaft and turbine as it would appear looking through tank sides.

the making of stable emulsions and dispersions, it is frequently advisable to pass the liquid through a colloid mill. By means of this device the liquid flows into the mill in which a high speed rotor drives it through a very small clearance between rotor and stator. The resulting shearing action assures more stable emulsions, extremely fine dispersions and better miscibility of usually immiscible liquids. Homogenizers, also employed for the same purposes, work on the principle of pumping the liquid under high pressure through closely set plates.

Air agitation is employed frequently for mixing lighter type liquids. It is simple in operation, but the correct placement of perforated pipes through which the compressed air passes is of some importance. The openings in the usual perforated coil should be staggered downwards at a 45° angle. This assures better agitation near he bottom, especially if lighter and heavier gravity liquids are being mixed. Special pipe fittings to increase the turbulence of the agitating action are available and at times preferable to a perforated coil.

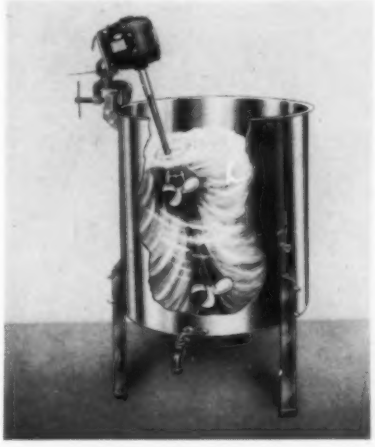
Since it is frequently necessary to mix inflammable or oxidizable liquids it should be kept in mind that air driven impellers lessen fire hazards. In addition, vacuum type mixers are available. Pressure, heat and fume exhaust types are also available if the processing requires these.

(To Be Continued)

Equipment Cleaner

CHEMICAL processing equipment gets dirty and unsightly with continued use unless it is cleaned at regular intervals with the right cleaning compound. Much waste can result from the neglected machinery. Hooker Elecrochemical Company, Niagara Falls, N. Y., recently announced Virgo Molten Cleaner for removing grease, dirt, corrosion and rust from painted and enameled surfaces. The cleaner works in a short time by a simple, inexpensive procedure. Further details are available by writing Hooker on company letterhead.

A "hy-Speed" portable mixer of Alsop Engineering Corp., Milldale, Conn., clamped to a bracket on an Alsop stainless steel tank. One mixer can be used on several tanks.



Decolorization

FILTROL CORP., Los Angeles, recently offered a booklet on the application of their products for clarifying, purifying, dehydrating, decolorizing, and similarly treating many chemical products. Filtrol's research facilities, recently expanded, are also available for customer service work.

Conveyor and Feeder

A very versatile conveyor for handling powdered or granular solids is the "Bulk Flo" unit of Link Belt Co., Milwaukee. The conveyor gently and positively moves the full or partially loaded elevating flights because the solid flights operate independently of any internal pressure. Single and multiple inlet or outlet openings are available in various designs to convey, elevate or feed materials at low costs within a minimum of space. The flights are self-cleaning, thereby minimizing any contamination. Sales offices in most large cities can provide further information.

Noise Softener

A device to reduce noise of certain factory operations by as much as 60 percent was made available recently by Owens-Corning Fiber Glass Corp., Toledo, O. The unit consists of 24- by 48-inch baffles, enclosed in plastic film, which may be hung from any ceiling. These baffles transmit the noise to a Fiberglass ceiling and thus reduce the volume of sound. Improved working conditions which have resulted in some places have increased output materially, due to less fatigue of workmen in noisy areas.

Handy Filler

ANDERSON BROS. MFG. CO., Rockford, Ill., describe a versatile collapsible tube, bottle, jar or can filler in their Bulletin 1-24. This

(*Turn to Page* 90)

Products and PROCESSES

Floor Polish or Stain

A pale, reddish-brown floor polish is obtained by adding .025 parts dyestuff to 30 parts molten beeswax. diluting the melt with 120 parts of paraffin wax and 350 parts of turpentine; warming and stirring the mixture until homogeneous. If five parts of dyestuff are used instead of .025 parts, the product may be used as a woodstain. *Paint Technology* 16, No. 192, 553 (1951).

Glass, Mirror Polish

A preparation designed especially for polishing glass and other reflective surfaces may be prepared by mixing together to form a suspension or dispersion, 20 parts of water, two parts of paraffin oil, and one part of a starch in fine powdered form. British Pat. 578,351.

Pyruvic Dentifrice

Pyruvic acid or pyruvates, together with succinic acid or succinates, are effective in reducing the viscosity of mucus, or liquefying it. Such compounds may act in conjunction with enzymes found in mucus and saliva, and may be incorporated in dentifrices, mouthwashes, ointments, gargles, chewing gums, etc., or may be used as aerosols for inhalation. A typical preparation consists of sodium pyruvate, sodium succinate, glycerine, gum tragacanth, and water. British Patent 604,350 through *Chemical Trade Journal* 130, No. 3371, 112 (1952).

Lab Glassware Detergents

Alkyl sulfate detergents have been found to interfere with prothrombin-time estimation in laboratory tests, due to their tendency to form insoluble calcium precipitates. Non-ionic detergents, however, do not interfere with this estimation. It is suggested that if synthetic detergents cannot be avoided, the non-ionic type products be used. If alkyl sulfates are used, glassware so washed should be rinsed afterwards with dilute acid, followed by tap and then distilled water. *Chemical Age* 65, No. 1693, 832, (1951).

Textile Fungicide

A ten per cent solution of copper 8-quinolinolate is said to have fungicidal properties, and be readily applied to textiles. The product, known as an "Quindex Emulsion Base" (Nuodex Products Co., Elizabeth, N. J.) is said also to be useful in mildew-proofing fabrics, threads, and cordages. The commercial preparation is mixed with an equal amount of water before use.

Wool Test for Bactericides

Bacteria have been classified for the past century as to a particular staining behavior; they are grouped as gram positive or gram negative. The reason for this difference in staining behavior was not known. Recent studies by Dr. P. Larose, and Dr. R. Fischer of Canada, have duplicated the staining effect with intact wool fibres acting as gram-negative bacteria and specially treated wool fibres as gram-positive bacteria. Further studies have indicated that to be highly bactericidal, a substance must have a marked affinity for wool. As a result, the affinity of such substances for wool can be used as an indication of their bactericidal power. *Manufacturing Chemist* 23, No. 11, (1951).

Brown Shoe Cream

A brown shoe cream is made by melting together 50 parts by weight of carnauba wax and 50 parts of beeswax, adding .5 parts of dyestuff. When this is dissolved, 50 parts of paraffin are added and the whole diluted with 350 parts of turpentine. The dyestuff recommended for the above may be prepared by coupling diazotized 2:5 dichloraniline with 1-aminonaphthalene.

A partially saponified shoe cream may be prepared by melting 50 parts carnauba wax, 50 parts of beeswax, and 50 parts of paraffin, adding six parts of dyestuff and boiling the whole for 20 minutes with 450 parts of a 10 per cent solution of soap and sodium carbonate. *Paint Technology* 16, No. 192, 553 (1951).

Correcting Rust Water

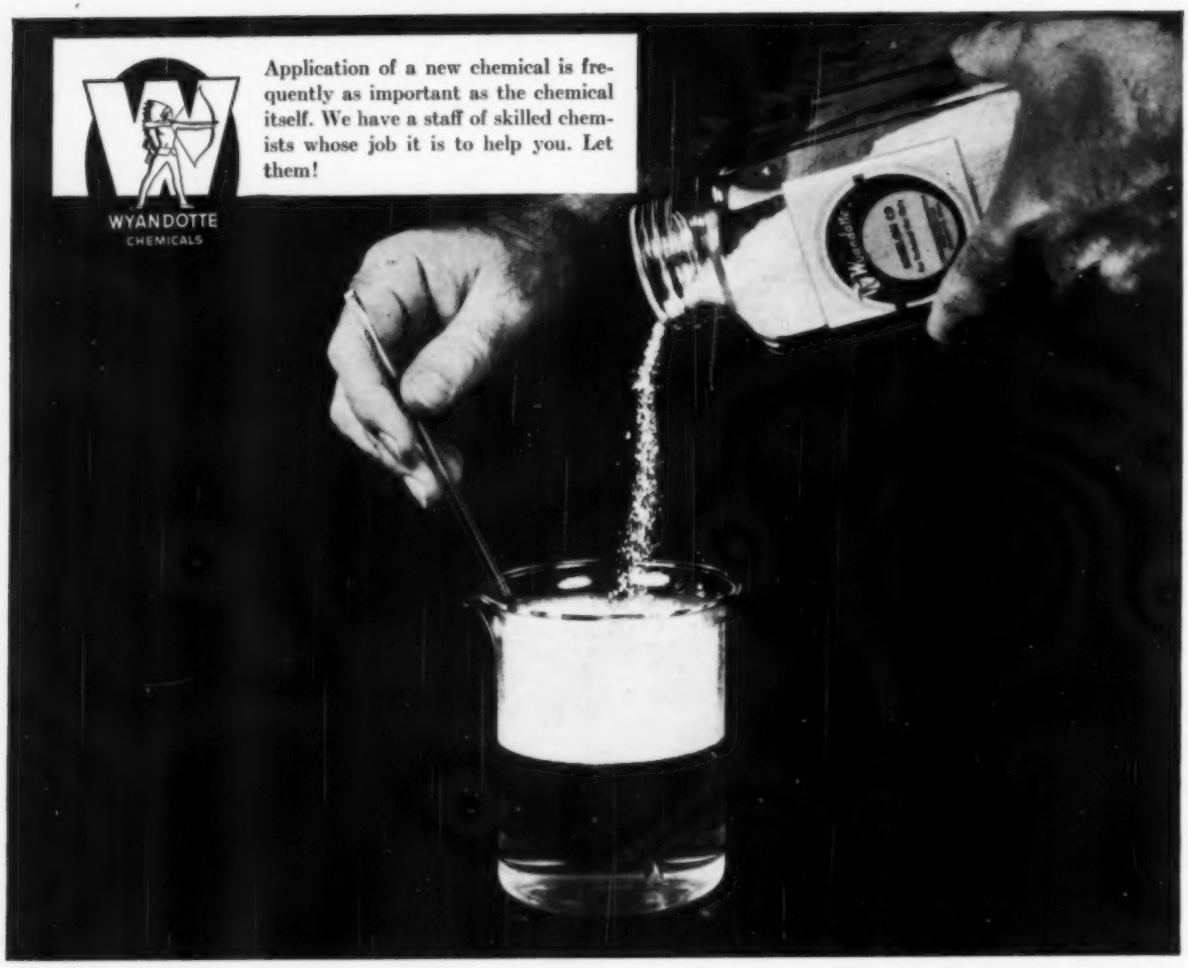
Release of a question and answer type data sheet which discusses the problem of correcting rust water was announced recently by Philadelphia Quartz Co., Philadelphia. By introducing small doses of liquid "Rusticon" silicate of soda into the main water system a thin protective film forms on the interiors of pipes and coils, the bulletin points out. The film wears away constantly and replaces itself throughout the continuous application and does not build up, nor obstruct the flow of water. Improvement in the water condition can be noted generally within 30 days. Sources of supply for the correct feeders are given as well as a diagram for home assembly.

Termite Repellents

Wood impregnated with 15 per cent copper (as copper sulfate) was found to remain immune to attack by *cryptotermes brevis*, Walker, for more than four years. Non-volatile mercury compounds, cadmium bromide, and cadmium acetate were found to be more repellent than copper sulfate. Two per cent concentrations of the fluorides of cadmium, lithium, sodium, and potassium were found also to be repellents. G. N. Walcott, *Sugar*, through *British Abstracts*, Nov. 1950, p. 960.

Egyptian Glycerine Exports

The advisability of exporting glycerine is reported to be under consideration by the Egyptian government, it was learned recently. Currently production is said to exceed local consumption. Reports from Cairo indicate that applications of glycerine producers to export their surplus have been opposed by some soap makers.



TRY KREELON CD...NEW, for promoted detergency, emollient effect on hands!

The only product of its kind, Wyandotte KREELON CD combines the advantages of a synthetic detergent and a *detergent-promoter* in your cleaner formulations!

Test these facts for yourself—*see* how new KREELON* CD benefits you, at an actual *saving in the cost* of your finished product.

Greater emollient effect

KREELON CD combines the advantages of a quality detergent with a detergent-promoter, sodium CMC, in one homogeneous, rapidly dissolving product. Substituted for the alkylarylsulfonate detergent you're now using, in a properly compounded cleaner, it promotes smooth, gentle, long-lasting suds . . . *reduces skin irritation*—a very positive sales appeal for your product. It will give your cleaner 20%-70% improvement in soil removal and whiteness retention properties in cotton-cleaning formulations.

Advantages in compounding

Because KREELON CD acts both as a detergent and promoter, it saves you storage space and handling time. It dissolves rapidly, for *further* time savings. It's dustless—minimizes housekeeping.

Whether you make general household cleaners, laundry compounds, scouring powders, building-maintenance or other cleaners—let us *show* you how KREELON CD can give you a superior cleaning compound *easier, faster, cheaper.* Write for complete data. *Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in Principal Cities.*

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Wyandotte CHEMICALS

NEW Patents

The information below is furnished by patent law offices of

LANCASTER, ALLWINE & ROMMEL

402 Bowen Building
Washington 5, D. C.

The data listed below is only a brief review of recently issued pertinent patents obtained by various U. S. Patent Office registered attorneys for manufacturers and/or inventors. Complete copies may be obtained direct from Lancaster, Allwine & Rommel by sending 50c for each copy desired. $1.00 for Canada. They will be pleased to give you free preliminary patent advice.

No. 2,580,713. Plastic Detergents and Method of Making Same, patented by Richard C. Wood, Westbury, N. Y., assignor to Procter & Gamble Co., Cincinnati, Ohio, a corporation of Ohio. The patent covers the process of preparing a detergent composition having a soft plastic consistency and a ready solubility in water, comprising: mixing saponaceous detergent, at least 25 per cent of which is a sulfated or sulfonated anionic organic detergent, water amounting to at least 10% and not more than 40% of the total composition, and electrolyte to form a highly fluid homogeneous mass in the nigre phase, having an elevated temperature above that at which a second detergent phase forms, and cooling said mass to room temperature, the composition of said mass being such that at room temperature it is predominantly in the middle phase but includes a minor proportion remaining in the nigre phase, said middle phase having a gummy plasticity and a characteristic conic anisotropic liquid crystalline nature as observed under a polarizing microscope, and said nigre phase being characterized by its amorphous nature and lack of structure as observed under a polarizing microscope, the amount of said nigre phase in the composition at room temperature being sufficient to impart to said composition ready solubility in water and reduced toughness and being not so great as to cause separation of phases.

No. 2,584,017. Washing Composition, patented by Vladimir Dvorkovitz and Thomas G. Hawley, Jr., Chicago, Ill., assignors to The Diversey Corporation, a corporation of Illinois. The patent describes a composition consisting essentially of a mixture of 1 to 20% sodium gluconate and 99 to 80% alkaline material, with some of the alkaline material being sodium carbonate in an amount up to about 10% thereof and the remainder being sodium hydroxide.

No. 2,581,174. Insecticides, patented by Roy Cross, Kansas City, Mo.; Mary Forbes Cross and First National Bank of Kansas City, executors of said Roy Cross, deceased. The patent covers an insecticidal composition of matter comprising the combination of the active ingredient 1,1 bis (p-fluorophenyl) 2,2,2 trichlorethane, and a carrier of a petroleum hydrocarbon solvent.

No. 2,581,278. Abrasive Detergent Composition, patented by Casimir J. Munter, St. Clair Township, Allegheny County, Pa., assignor to Hall Laboratories, Inc., Pittsburgh, Pa., a corporation of Pennsylvania. A finely-divided free-flowing detergent composition is patented consisting essentially of from about 40%-60% by weight of a sodium soap, from about 30%-40% by weight of finely-divided water-insoluble crystalline sodium metaphosphate, from about 2%-10% by weight of finely-divided crystalline potassium metaphosphate and from about 5%-10% by weight of anhydrous tetrasodium pyrophosphate, said detergent when used having both water softening and abrasive properties resulting from that portion of the crystalline sodium metaphosphate which is not dissolved while the product is being used.

No. 2,573,896. Treatment of Glyceride Oils, patented by Stephen E. Freeman, Pittsburgh, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania. A method of treating glyceride oil containing glycerides of different degrees of unsaturation is covered which comprises extracting the oil with furfural to provide a liquid furfural solution which contains unsaturated glycerides and a second liquid phase which contains relatively more saturated glycerides, separating the liquid furfural solution from the second liquid phase, extracting the furfural solution with a liquid paraffin hydrocarbon to separate glycerides therefrom leaving in the furfural a concentrate comprising unsaponifiables and saponifiables, and saponifying the saponifiables and extracting unsaponifiables with a petroleum hydrocarbon.

No. 2,583,492. Aqueous Solutions Containing Soapless Detergents, patented by Frederick J. Pollok, Largs, Scotland, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain. The patent describes detergent compositions of improved dispersing power and stability consisting essentially of an aqueous solution of an anionic surface active soapless detergent in a quantity not above 8% of the weight of the composition and not over 4% of a "crude water-soluble alkali metal carboxymethyl cellulose," said carboxymethyl cellulose having between 0.7 and 0.8 carboxymethyl groups per anhydro glucose unit of cellulose.

No. 2,572,669. Means for Controlling the Dissipation of Normally Solid, Volatile Organic Insecticides, patented by Theodore W. Sarge and Hugo L. Schaefer, Midland, Mich., assignors to The Dow Chemical Company, Midland Mich., a corporation of Delaware. The patent covers a double-wall clothes bag, the outer wall being of regenerated cellulose sheet, the inner walls being of an organic thermoplastic film whereof the thermoplastic is selected from the group consisting of polyethylene, rubber hydrochloride, polyvinyl chloride, vinyl chloride-vinyl acetate copolymer, vinyl-idene chloride-vinyl chloride copolymer, vinyl-idene chloride-ethyl acrylate copolymer, ethyl idene chloride-ethyl acrylate copolymer, ethyl cellulose and cellulose acetate, and having a body of a normally solid, volatile organic insecticide selected from the group consisting of para-dichlorobenzene, carbon tetrabromide and naphthalene between said inner and outer walls.

No. 2,581,842. Insect Repellent, patented by Nathan L. Drake, College Heights, Md., and Charles M. Eaker, Affton, Mo., assignors to the United States of America as represented by the Secretary of the Army. The patent covers an insect repellent composition containing as an essential active ingredient N,N-dipropyl levulinamide, and a non-toxic ointment as a carrier therefor.

No. 2,582,940. Thiosemicarbazide Rodenticide, patented by Emanuel Waletzky, Stamford, Conn., and Alexander Bliznick, Long Island City, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine. A rodenticide including as its principal toxic ingredient thiosemicarbazide, and a rodent edible solid food as a dispersion medium therefor is described.

No. 2,581,841. Insect Repellent, patented by Nathan L. Drake, College Heights, Md., and Charles M. Eaker, Affton, Mo., assignors to the United States of America as represented by the Secretary of the Army. The patent covers an insect repellent composition comprising 1,4-cyclohexanediol monopropionate in a non-gaseous inert organic carrier.

They discovered

The Romans learned to make a soft brown jelly from goat tallow and beachwood lye which the Gauls used as hair ointment. The physician Galen discovered that this preparation was effective in removing dirt from the skin.

have YOU discovered

that Tall Oil is being "discovered" by more and more soap manufacturers, because it simplifies processing and is definitely lower in cost?

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is . . . Good in Color
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Manufacturers *depend on Union* for steady, continuous flow of Unitol! Write for further information to Chemical Sales Dept. of Union.

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WOOLWORTH BUILDING, NEW YORK 7, N. Y.

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. . . ADD *Versene*®

VERSENE — INCREASES DETERGENCY

When your soap products or compounds, synthetic or otherwise, need greater detergency in either hard or soft water it's time to investigate the Versenes. These powerful organic complexing agents (known as the sodium salts of ethylene diamine tetra acetic acid and other polyamino acids) can help you in more ways than one. Available in liquid or powdered form, they are completely stable at all temperatures and pH's.

VERSENE — FOR VERSATILE ACTION

Effective in synthetic detergents as well as in soda, potash or amine soaps, Versene perceptibly increases cleansing power and foaming action, lengthens shelf life, prevents oxidation, insures clarity (liquid soaps), gives "built-in" hard water resistance, inhibits precipitation of silica, prevents metallic ion contamination, solubilizes proteins, saponifies fats and oils, and provides synergistic action with quarternaries.
What's more, it completely and permanently softens hardest water without precipitation.

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NEW VERSENE WATER TEST KIT. Tells total hardness in 2 minutes. Accurate to 1 grain per gal. Versenate method. Complete kit $5. postpaid.

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Providence Agent: George Mann, 251 Fox Point Boulevard, Providence, R. I.
W. Coast Agent: Griffin Chemical Co., San Francisco, Los Angeles
Midwest Agent: Kraft Chemical Co., Inc., 917 W. 18th Street, Chicago
Wasatch Chemical Co., Salt Lake City, Utah
Barada & Page, Inc., Dallas and Houston, Texas
Associated Chemical Co. of Canada, 14 Darrell Ave., Toronto, Ontario
Chas. S. Tanner Co., 1815 Liberty Life Bldg., Charlotte, North Carolina

SOAP PLANT *Observer*

By John W. McCutcheon

ARE synthetic detergents hard on washing machines? Some manufacturers say so in no uncertain terms. Synthetic detergent manufacturers, of course, are horrified at the thought. How could anything so gentle and easy on the hands have anything to do with eating away the porcelain, attacking the wringer bearings and making the agitator fall over dead?

In the first place, we must recognize the fact that this controversy between synthetic detergents and washing machines has been going on for some time and no doubt some of the opinions are based on factors which no longer exist. During World War II, for example, a lot of so called synthetic detergents were marketed which were definitely low in detergent and high in alkaline salts. It is easy to see how such products would take the paint and enamel off any machine and even take the skin off the hands for good measure. Such type products are a thing of the past (we hope!). However, many washing machines in use during this period are still operating. When one finally falls apart, who can say now, when the damage had been done? And the manufacturers of synthetic detergents have some basis of complaint when they say the machines are no good. Certainly during the same period mentioned above, many essential raw materials were not available.

From personal experience, I had ten times more trouble with my 1947 car than I had with my 1941, although they were of identical make and model. It is hardly fair to blame all machines on the basis of such "period furniture." In this respect both detergent and machine manufacturer would do well to remember that there is no substitute for quality.

The purchasing agent of a company for which I once worked used to annoy me greatly by asking if the public could tell the difference

if we reduced the soap in our powdered product from 55 to 54 percent. I had to tell him, that in all probability they could not. Then why didn't we do it? Since this particular purchasing agent was also a director and vice president of the firm, I had a problem on my hands which I immediately unloaded into the lap of our technical director.

"Pay no attention to him," was his advice, "we both know that if we did let him pressure us into a one percent reduction he would never let up until, step by step we were down to 50 or even 45 percent and then the public most certainly would know what was going on."

Along the same line of thought, I recall a lecture many years ago by Dr. Colin G. Fink at that time professor of electrochemistry at Columbia University. When electroplating was first introduced in the automobile industry, such a coating of chromium was put on that the metal part so treated outlasted all other parts of the car. An investigation was then started, to see how much this coat could be reduced and still provide adequate protection. After much work, a satisfactory specification was finally arrived at. The coating was so thin that the molecules of chromium were insufficient in number to do no more than shake hands with one another across a vast expanse of iron. I shudder to think what this practice has finally led to! Somewhere, some sort of stand for quality must be made for both detergent and equipment. To be able to drive one's fist through the side of the machine without skinning the knuckles might for example be a minimum specification for wall thickness.

There is no question that synthetic detergents caught many manufacturers of washing machines off base. On the other hand, detergent makers didn't pay enough attention to corrosion problems. Synthetic detergents are in general highly built with phosphates, far more so than soap products. They should therefore contain a small percentage of sodium silicate to inhibit corrosive action. This is chiefly evident in the pitting of aluminum surfaces of the agitator and wringer parts. The detergents do not form lime soaps which normally tend to waterproof and even lubricate the agitator shaft. The result is that water leaks through into the gear box, motor bearings and causes corrosion. This should be looked upon as a changed condition of use, requiring in some cases the redesigning of bearings or the use of better type gaskets. The detergents actually dissolve and wash out lime soap deposits already present from soap use. On used machines this often loosens up the bearing and gaskets to a point where they leak and start to wear by washing out the lubricating oil. It is common practice in industrial laundries to overhaul all equipment after it has been put on synthetic detergent service and the lime soaps have been emulsified out. In home laundry practice, this is not practical and the manufacturer must anticipate the use of either soap or synthetic detergents and design his equipment accordingly. There is every reason to believe that this is being or has been done by all progressive manufacturers and that this problem is fast being solved.

* * *

Liquid detergent compositions have not exactly flooded the market in recent years, although there is much to be said in their favor.

"Glim," a nonionic, and the oldest product in the field can be made up to 100 percent active and still be liquid. The high foaming anionic product, "Joy," is an interesting competitor although its nature would preclude the use of very high concentrations which in this case are unnecessary. A recent U. S. Patent 2,581,677, S. Machlis and E. B. Michaels (to Stamford Chemical Co.) offers an interesting possibility. Here anionic detergents and an alkaline salt, such as tetra potassium pyrophosphate are made compatible in aqueous solution by the addition of 2 to 10 percent of such a hydrotrope as sodium xylene sulfonate. One formula given by way of example is as follows:

	Per cent
Tetrapotassium pyrophosphate	26
Sulfonated coconut oil fatty acid amide	10
Alkyl aryl sulfonate	4
Sod. lauryl sulfate	4
Sod. xylene sulfonate	10
Water	46
	100

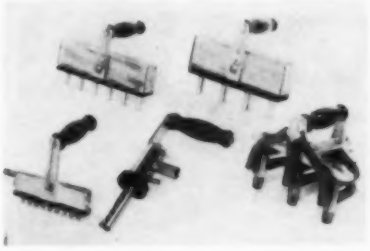
The use of such solubilizing agents is not new (see R. H. McKee, *Ind. & Eng. Chem.* 38, 382 (1946) and H. S. Booth and H. E. Everson, *Ind. & Eng. Chem.* 40, 1491 (1948), which makes the above patent all the more interesting, perhaps?

* * *

"PERMACEL" is the registered trade name for an adhesive industrial tape made by the Industrial Tape Corporation of New Brunswick, N. J. "Permacel-15" is a fibreglas reinforced tape which sells at $2.96 for a one-inch, 60-yard roll in lots of 36 rolls per case. The interesting thing about this tape is its tensile strength of approximately 200 pounds. This feature makes it competitive with metal tape for many jobs. The glass fibers run longitudinally and adhesion is excellent. Advantages claimed over metal tape are as follows: no special equipment needed. It holds snug to all parts of the package and cannot slip off. It does not injure or cut fiber containers. It is easily removed by cutting and can be left on the container for easy disposal. Intermediate widths from ½ to 2 ins.

Adjustable Filling Heads

Adjustable four and six spout filling heads are now being produced by Scientific Filter Co., New York,



for those requiring greater output for standard sizes of bottles or cans. With these new heads the portable type vacuum filler in many cases can now provide hourly outputs about equal to those of larger machines. For filling smaller vials, solid block filling heads of up to nine spouts can solve the problem of large output at nominal cost for equipment, the company states. Adjustable three, four and even six spout heads can be furnished for shaker type bottles. Special individual gallon spouts are available. Two such heads are used per machine, thus providing large hourly output.

New Plastic Apron

A new industrial Vinyl plastic apron designed for use in chemical plants was announced recently by Thrifty Products Co., P.O. Box 371, G.P.O., Brooklyn 1, N. Y. The apron, which may be wiped clean with a damp cloth or alcohol, is said to withstand extreme low temperatures without cracking or peeling. It is also said not to be affected by most acids or alkalies, oil or grease, and is non-inflammable, waterproof and mildewproof. The new "True-Flex" apron has no stitched seams, all hems and bindings being heat sealed.

New Type Portable Mixer

The development of a new type portable mixer featuring lightness and portability, was announced recently by Process Industries Engineers, Inc., Pittsburgh, Pa. The new mixer, designated "Pie-Flex", has a separate motor coupled to the propeller shaft by flexible drive shaft especially designed for agitator service. Mixer, drive shaft and motor are quickly and easily detached for carrying separately.

Removal of the motor from its customary place at the top end of the propeller shaft, besides reducing the weight by more than half, results in a mixer of simplified design, streamlined and well balanced. In addition the mixer is said to be easier to handle, mount in place and adjust to the desired angle.

Greeff Adds to Line

R. W. Greeff & Co., New York, announced recently that as sales agents for Socony-Vacuum Oil Co., they are now offering in commercial quantities benzonitrile and thiophene. Benzonitrile sells for 47 cents a pound, lcl, and 46¾¢ in car loads; thiophene is $2.00 per pound lcl and $1.9975 in carloads. Both are f.o.b. Paulsboro, N. J. in 55 gallon returnable drums. Technical literature and experimental quantities are available by writing Greeff at 10 Rockefeller Plaza, New York 20, N. Y.

New D&O Fruit Line

Development of a new line of genuine fruit extracts, to be marketed under the trade name "Dogen", was announced in the February issue of "D&O News", house magazine of Dodge & Olcott, Inc., New York. Claude Johnstone is manager of the D&O flavor department under whose direction the new line was developed. A new catalog on flavors including the "Dogen" fruit extracts has also been issued. The current issue of "D&O News" also discusses the function of the trade advertisement.

Discusses Odor Control

Microchemical Research Institute, Douglaston, N. Y., recently issued a brochure entitled "Odors and Fumes". The new booklet points out the need for odor and fume control, enumerates the requirements for an efficient odor and fume control system and lists the advantages claimed for Microchemical Research Institute decontamination systems. The new brochure is available on request from Microchemical Research Institute, Douglaston, N. Y.

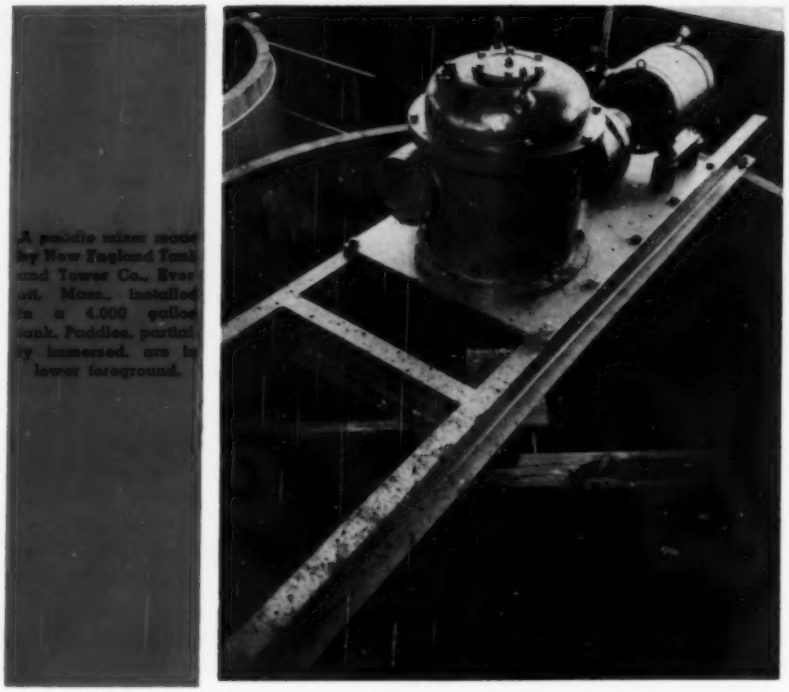
Production Clinic

(*From Page* 81)

machine handles liquids, pastes or greases in capacities up to one pint. Various types of filling nozzles are adapted to containers of different size or shape. For small plants this filler is useful. It is fast, easy to clean and simple to operate.

Filtering Sheets

MAKERS of liquid soaps, antiseptics, insecticides and other liquids are finding asbestos filtering sheets valuable. Ertel Engineering Co. of Kingston, N. Y. has available such sheets for all types of filters. Free sheets for test purposes may be had for a single set-up for filters. Ten different grades, adapted for specific liquids are handled by the company. The correct selection results in better, more rapid clarification.



A paddle mixer manufactured by New England Tank and Tower Co., Everett, Mass., installed in a 4,000 gallon tank. Paddles, partially immersed, are in lower foreground.

Syn. Detergents

(*From Page* 39)

hold. This trend should continue. Surely street washing cannot be far away, and with it goes most of the filth tracked into homes, institutions and hotels. All vegetables, indeed all food will be washed before marketing. There will be better means of cleaning rugs, upholstery and walls—yes, even the outside paint.

It can be said that the detergent development has been very satisfying, not only because of the useful work which the detergents have done but because of business and jobs it has created. It is estimated at the present time 450 chemists are regularly engaged in work with the synthetic detergents. The investment in plants is estimated at $150,000,000 and factory employment at 5,000 persons. The value of the detergent to the ultimate consumer is valued at close to $400,000,000.

The synthetic detergents have established new standards of cleanliness, which have been an important factor in the resumption of the upward trend in life expectancy. They have provided better goods of all kinds at better prices. In spite of all this, we have just begun to realize the benefits from the important bearing that these new synthetics will have on our daily life. Still greater fields and larger benefits lie ahead of us.

—— ♦ ——

General Mills Names Brown

Dr. William B. Brown, formerly plant manager for Pittsburgh Coke and Chemical Co., Pittsburgh, Pa., was recently appointed manager of the Kankakee, Ill., chemical plant of General Mills, Inc., Minneapolis. In his new post he is responsible for the production of the company's line of fatty acids, polyamide resins and other organic chemicals.

Dr. Brown holds a B.S. degree in chemistry and a doctorate in organic chemistry from New York University. He also studied at the University of Munich (Germany) and Carnegie Institute of Technology.

In 1942 he joined Pittsburgh Coke and Chemical Co., serving successively as assistant director of research, director of research and development, manager of chemical devolopment, general superintendent and plant manager. From 1936 until 1942 he was with Barrett Co., first as research chemist, later as research group leader.

Wildroot F.T.C. Hearings

Hearings in the case of Wildroot Co., Buffalo, N. Y., charged by the Federal Trade Commission with unlawful payments of "push money" and cooperative advertising allowances in connection with the sale of hair tonic and shampoos, began in Cleveland, O., Feb. 18. J. Earl Cox of the F.T.C., was hearing examiner and Rice Schrimsher, attorney in support of the complaint.

—— ♦ ——

Snell on Synthetics

Dr. Foster Dee Snell, president of Foster D. Snell, Inc., New York spoke recently on synthetic detergents at sections of the American Chemical Society in Fayette and Bloomington, Ind. and Louisville and Lexington, Ky. He discussed those structures which have received wide acceptance in the United States for the manufacture of synthetic detergents. After summarizing their properties and methods of large-scale manufacture, Dr. Snell outlined the results of these U. S. developments in various European and South American countries. In some countries, he said, manufacture of synthetics is already well under way, and in others development is still in the planning stages.

Sanitary Chemicals Section

There's a better way to perfume liquid soap

The best and thriftiest way to impart a pleasing sales stimulating fragrance to your liquid soap is to use MM&R Liquid Soap Perfume Oils. They dissolve clearly, without filtration in solutions as dilute as 15% . . . have exceptional strength and are extremely low in cost.

The MM&R Perfume Research Laboratories will gladly recommend a perfume oil — or develop a special one for you. Just send a sample of your unperfumed product with an indication of your budget. We'll add a sales-boosting scent and return for your approval. No obligation whatsoever.

Some favorites are MM&R Lilas Blanc, Bluebellol, Forest Pine Bouquet, Bluestone Bouquet and Osheana — all refreshingly fragrant, all modest in price.

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Magnus, Mabee & Reynard, inc.

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Would You Like to Save

Use WASHBURN CONCENTRATED SEAL AND FINISH

Yes, sir . . . average users of Washburn Concentrated Seal and Finish easily save $1000 a year. Buying in *concentrated* form, you save manufacturers' profits, warehouse storage, and inventory dollars. Here is an ideal BASE material, to be used both as a penetrating seal and as a surface seal . . . an idea pioneered by us. You simply reduce this concentrate with 49 gravity mineral spirits according to the solids percentage desired.

Keep a drum of Washburn Concentrated Seal and Finish on a rack next to a drum of mineral spirits. You can then easily fill your own containers in the proportions desired. Thus, you get QUALITY products at LOWEST POSSIBLE COST . . . with less storage space, lower inventory investment.

Write for Samples,

Specifications and Formulation Instructions

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T. F. WASHBURN COMPANY

AN ANNOUNCEMENT concerning

INTERDEPARTMENTAL COMMITTEE ON PEST CONTROL

A Statement on the Health Hazards of Thermal Generators as Used for the Control of Flying Insects.

The Interdepartmental Committee on Pest Control composed of representatives of the Departments of Agriculture, Interior, and Defense, and the Federal Security Agency held its regular third quarterly meeting on September 21, 1951 at Washington, D. C. This Committee agreed upon the following release relative to the use of insecticidal vaporizing devices:

"It is the considered opinion of the Interdepartmental Committee on Pest Control that there are at present no data to indicate that the use of thermal generators dispensing only lindane, DDT, or mixtures of the two, for the control of flying insects is unsafe when the following restrictions are enforced;

1. The insecticide shall be released at the rate not to exceed 1 gram per 15,000 cubic feet per 24 hours.
2. Installation shall be made only in commercial or industrial premises, mess halls, and similar locations where human exposure will be on a working day basis—not continuous.
3. The devices should not be used in homes or sleeping quarters.
4. Devices shall be so constructed that output in excess of that recommended is impossible. Fuses to protect against overloading and high temperatures, and a pilot light to indicate whether or not the unit is operating should be 'built-in' features.
5. Units should be mounted above head height and 3 feet or more from the ceiling.
6. Installation shall be such that any material which might condense on nearby equipment, walls, or ceiling cannot be dislodged and fall into or otherwise contaminate food.

Since DDT and lindane are poisons, it is the opinion of the Committee that danger will arise from deliberate or unintentional violation of these basic principles."

H. L. HALLER, CHAIRMAN

Address:
Bureau of Entomology and Plant Quarantine
Department of Agriculture
Washington 25, D. C.

S. W. SIMMONS, SECRETARY

Address:
Technical Development Services
Communicable Disease Center
U. S. Public Health Service
P. O. Box 769
Savannah, Georgia

Washington, D. C.
September 21, 1951

Read *this* Authoritative Statement *Carefully*

←— ←—

The

# of IMPORTANCE Insecticidal Vaporizers

Reproduced on the opposite page is a statement by the United States Interdepartmental Committee on Pest Control. This statement, made by officials responsible for safeguarding public health, confirms the necessity for the basic standards that have governed the Aerovap design, manufacture and operation from the beginning.

In the original conception of the Aerovap process, the prime objective was to produce an automatically operated device which would vaporize chemicals at a uniform rate, in predetermined minute quantities, for the purpose of continuously dispersing an insect toxicant without any deleterious effect on human beings. The result was the thermostatically regulated Aerovap Unit—carefully engineered to control chemical vaporization rates within milligram tolerances.

In the Aerovap Unit there is embodied the best available components to give long life and high quality performance. There is not a single part that could be omitted, or even cheapened, without detracting from this performance or without introducing a health hazard. In short, nothing has been sacrificed in our endeavor to give the public a safe and efficient insect control system.

Specifically incorporated in the Aerovap Unit are provisions to permit the user to determine readily for himself that the chemical vaporization rate meets the recommendations of the Federal Government. The user is not left to the mercy of false advertising claims. The user is not induced to operate a vaporizer that is designed with an indifference to, or an ignorance of, how to achieve the basic standards essential to public health as set forth in the Governmental committee statement.

An Infringement Suit is the legal recourse available to American Aerovap, Inc. for protecting its position of originality and patent rights. A number of such suits have already been filed in Federal District Courts against users and distributors of several imitations on the market. Under the Aerovap process patent, the law construes the USER as the infringer and the DISTRIBUTOR or SELLING AGENT as the contributory infringer.

The Aerovap System was developed through the efforts of the research scientist. It is backed by the most thorough and extensive scientific research program of its kind.

AN ORIGINAL AND PATENTED PROCESS THAT IS:

AUTOMATIC	NOISELESS
CONTINUOUS	STAINLESS
ODORLESS	ECONOMICAL

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170 W. 74th St. New York 23, N. Y.

Member: American Public Health Association

AEROVAP System

SCIENTIFIC FLY CONTROL

Fifth "Freon" CUSTOMER DEMAND for

Market for aerosol products rapidly increasing

The number of aerosol users has more than doubled in the last 4 years! The nationwide 1951 Du Pont aerosol market survey shows that 57% of consumers interviewed used aerosol products. This is an increase of 111% over 1947, when only 27% of consumers bought aerosols.

More *new* customers bought aerosols last year than in any year since the surveys began. About 1 user in every 6 was a new customer . . . someone who bought an aerosol product for the first time in 1951.

But the survey also shows that there is still a large, untapped market for aerosol products of all kinds. This market exists at all economic levels and in every region of the country, both urban and rural.

Customers like aerosols . . . come back for more!

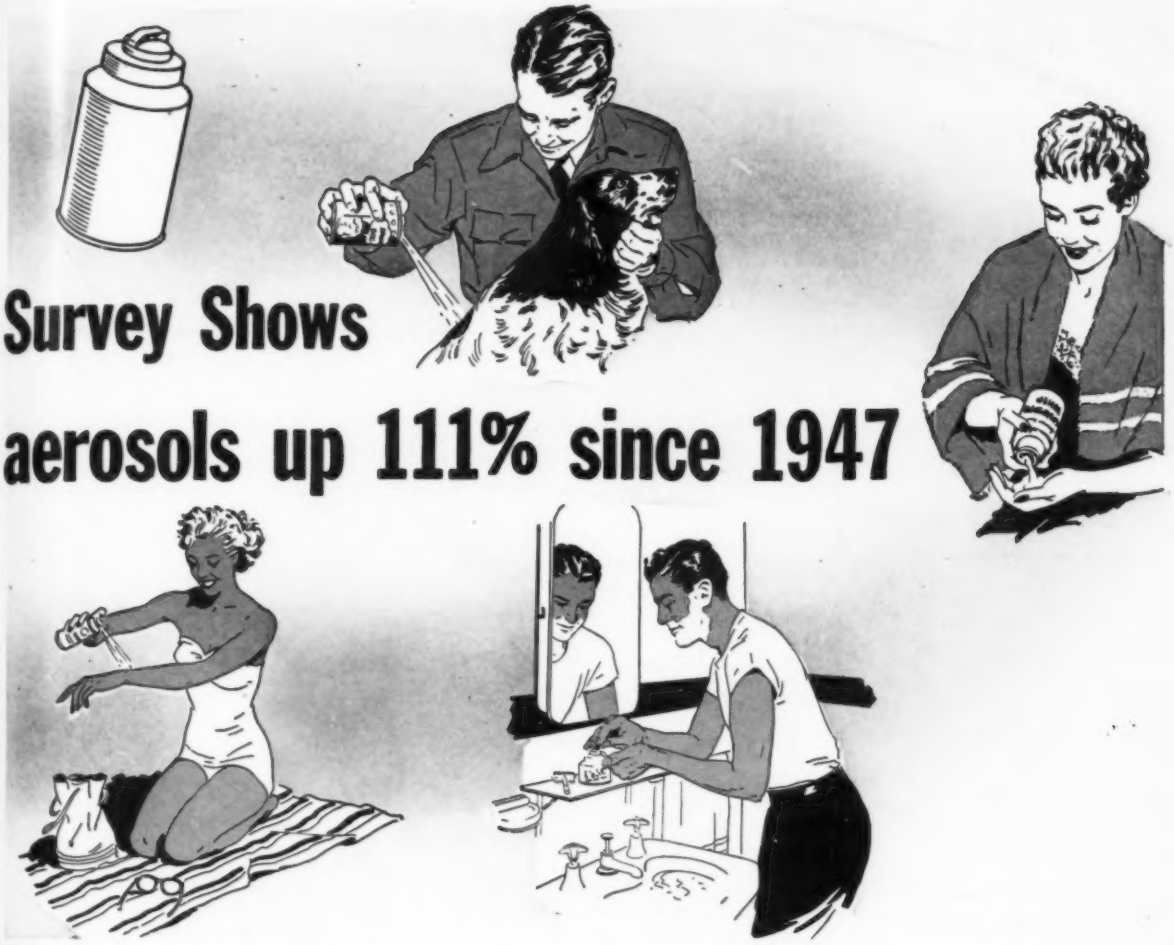
The great majority of consumers (97%) reported that they were satisfied with the aerosol products they had tried. Customers like aerosols because they find them more convenient, easy to use, more effective and quick acting. The study shows that there is a steady resale market for aerosols as well as a sharp upward trend of new users.

Insecticides best sellers . . . other products gain.

Insecticides still top the list of aerosols used . . . with room deodorants, paints and mothproofing preparations making strong gains. The newer aerosol products—personal deodorants, shave creams, shampoos, sun-tan preparations and many others—are also rapidly gaining popularity. The majority of users reported that they would continue to buy and use them.

DU PONT
REG. U. S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

"FREON" SAFE



Survey Shows aerosols up 111% since 1947

Customers assured of safety with "Freon" propellents. When a customer considers buying an aerosol, the question of safety is often in his mind. Many dealers have found it helps their sales to stress the safety factors of "Freon" propellents, used in most aerosols. These propellents are nonflammable, nonexplosive, virtually nontoxic... harmless to fabrics, furs and finishes.

FREE! Copy of the new "Freon" survey.

This digest copy of the 1951 survey of the aerosol market is yours for the asking. Covers dealer distribution practices, consumer buying habits . . . including for the first time a study among rural residents. Because the steadily increasing number of aerosol products falls into two main groups, household and personal products, the new survey has been extended to give you market data for both types. Write today for your copy of "The Aerosol Market," E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.

"Freon" propellents meet every aerosol need

21 different "Freon" propellents supplied during 1951 show versatility of these products. For example, four different propellents were supplied for insecticides, three different ones for foam products, three different ones for room deodorants... all told, twenty-one different propellents were supplied to aerosol manufacturers during 1951. This is a good example of "Freon" versatility, a property of growing importance in view of the steadily increasing variety of aerosol products.

This means that a "Freon" propellent can be tailored to give just the right particle size, pressure, solubility or other properties to meet any need. So . . . whenever you have any propellent problems . . . be sure to investigate "Freon" propellents. Complete information on their use will be sent on request.

PROPELLENTS

KINETIC
REG. U. S. PAT. OFF.

"FREON" is Du Pont's registered trade-mark for its fluorinated hydrocarbon propellents.

Why not push a product

You can buy in '52?

We are manufacturing our *complete line* of Bobrick Soap and Lotion Dispensers, Pullman-type Dispensers, Gravity-Feed Tanks and Valves *excepting* Monel Models 12, 17, 47 and 120 which are subject to indefinite delay in delivery.

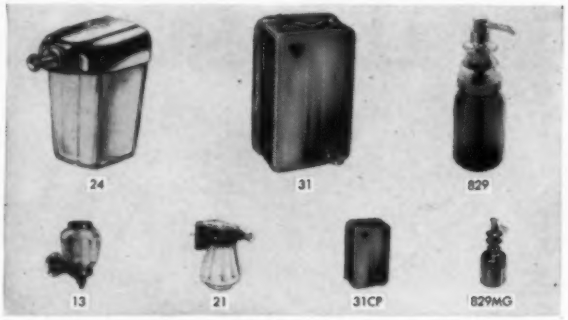
We are actually anticipating increased dispenser production in 1952 through careful selection and judicious use of less critical materials, all without decreasing the function, beauty, efficiency and longer-wearing qualities that make the Bobrick line outstanding.

For example, in our Pullman-type Dispenser line, concealed parts formerly made of brass are now made of *specially-processed, non-corrosive* cold rolled steel. Exposed parts are still made of chrome-plated brass or stainless steel as before.

All dispensers carry the full Bobrick Guarantee!

UNLIMITED DELIVERY

Now in continuous manufacture.
No materials problem.
Always available.
Excellent 1952 catalog items.



IMMEDIATE DELIVERY

Now being manufactured on basis of materials allocations.
Currently available.
Good 1952 catalog items.

IMMEDIATE DELIVERY

Now being manufactured on basis of materials allocations.
Currently available; any further allotment curtailment could cause restriction of these items.

We'll see you at
BOOTH NO. 101
1952 NSSA CONVENTION

Bobrick products are sold exclusively through recognized Jobbers throughout the U.S.A. and Canada. For fast service we suggest that you send orders to your closest source of supply.

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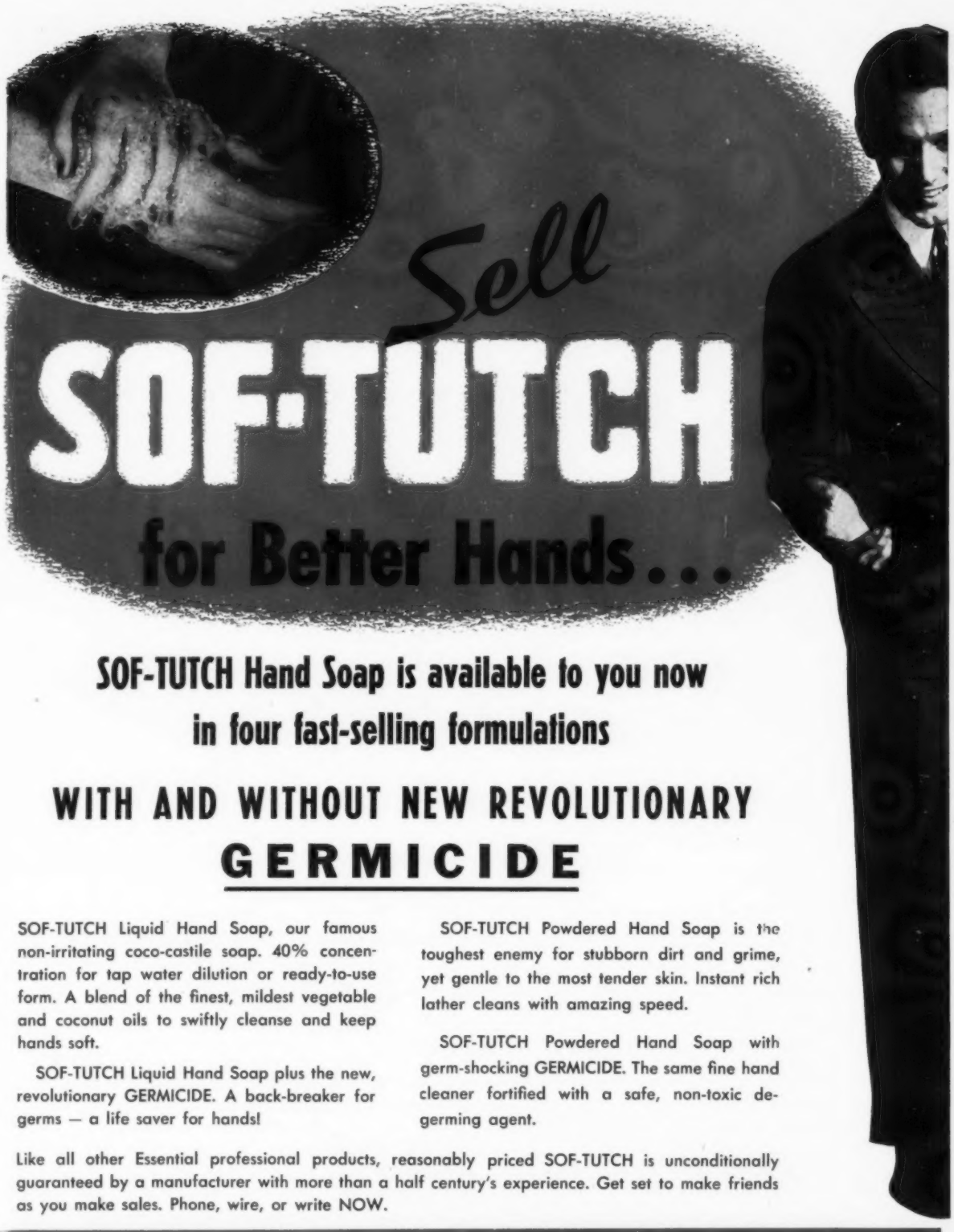

Sell SOF-TUTCH for Better Hands...

SOF-TUTCH Hand Soap is available to you now in four fast-selling formulations

WITH AND WITHOUT NEW REVOLUTIONARY GERMICIDE

SOF-TUTCH Liquid Hand Soap, our famous non-irritating coco-castile soap. 40% concentration for tap water dilution or ready-to-use form. A blend of the finest, mildest vegetable and coconut oils to swiftly cleanse and keep hands soft.

SOF-TUTCH Liquid Hand Soap plus the new, revolutionary GERMICIDE. A back-breaker for germs — a life saver for hands!

SOF-TUTCH Powdered Hand Soap is the toughest enemy for stubborn dirt and grime, yet gentle to the most tender skin. Instant rich lather cleans with amazing speed.

SOF-TUTCH Powdered Hand Soap with germ-shocking GERMICIDE. The same fine hand cleaner fortified with a safe, non-toxic de-germing agent.

Like all other Essential professional products, reasonably priced SOF-TUTCH is unconditionally guaranteed by a manufacturer with more than a half century's experience. Get set to make friends as you make sales. Phone, wire, or write NOW.

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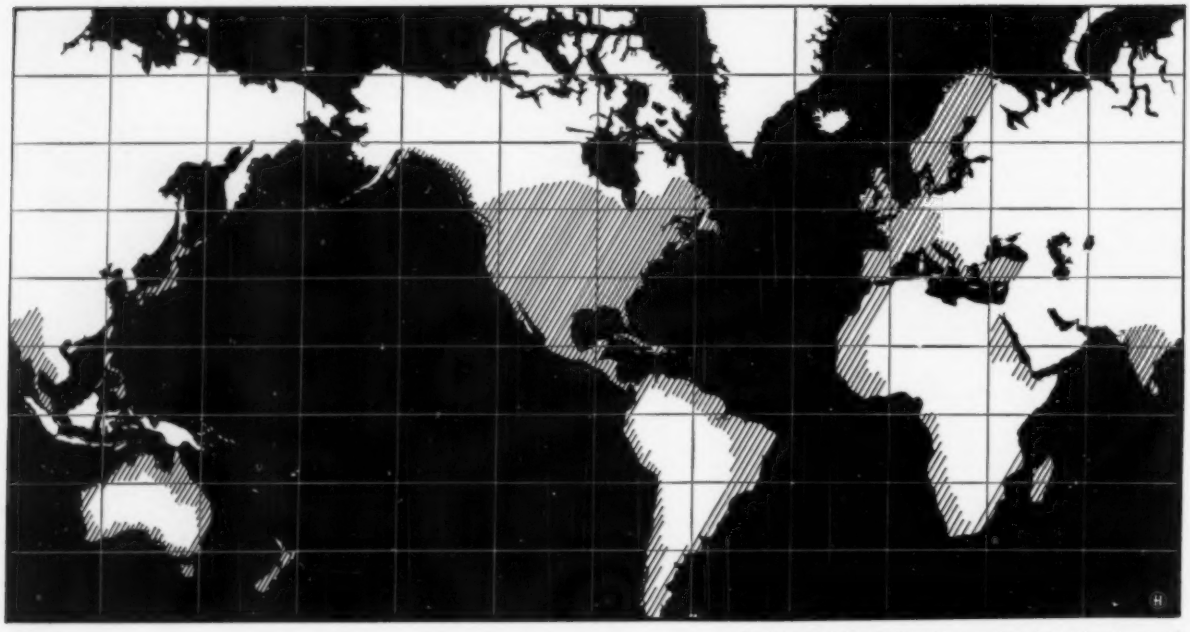
Applied Chemistry for Improved Professional Maintenance



Shaded areas indicate where chlordane formulations have been used

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more of the world demands

CHLORDANE

For effective Insect Control in Home, Garden and Field

Chlordane has made record increases in worldwide acceptance as reflected in volume consumption. Effectiveness over wider range of insect pests, ease of formulation and application, plus quality-control in production are the major factors responsible for consistent growth in worldwide preference for chlordane.

Chlordane readily lends itself to application in oil solutions, wettable powders, dry dusts and emulsifiable concentrates.

We believe it will prove to your benefit, if you are not already familiar with its many advantages, to write for full information on chlordane.

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A BIG STRIDE FORWARD!

. . . IN THE FORMULATION OF NO-RUB FLOOR POLISHES

YOUR SALES will take a big stride forward when you formulate your floor polish with COLD-PRO 90. Statistics prove that products with high shellac content are leading in sales and that consumer preference is for higher gloss and harder film.

To give you the maximum of these important requirements ACME developed COLD-PRO 90. Produced by our exclusive cold process of bleaching, this grade offers the highest gloss and hardest film . . . at a real saving in cost. No wonder COLD-PRO 90 is the most popular shellac in the wax field today. ACME SHELLAC PRODUCTS CO., 105 Blanchard St., Newark 5, N. J.

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Cold Pro 90 **WAX-FREE REFINED**

SHELLAC

five reasons why chemical men specify INLAND steel containers

1 TESTED—Every Inland container is individually tested to insure satisfactory performance in use.

2 SIZES AND STYLES—Inland containers . . . of every type used in your industry . . . are available in sizes from 3 to 58 gallons.

3 LINING RESEARCH—Inland . . . with the most experienced lining research department in the industry . . . has developed or improved container linings for hundreds of products.

4 CREATIVE DECORATION—Inland's creative staff can assist customers in developing effective container decoration—printed or lithographed—for greater sales impact.

5 SERVICE—Inland's service to users of Inland containers does not end with production and shipment: Its policy is one of complete customer satisfaction on container performance.

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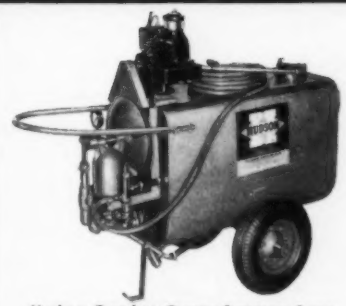

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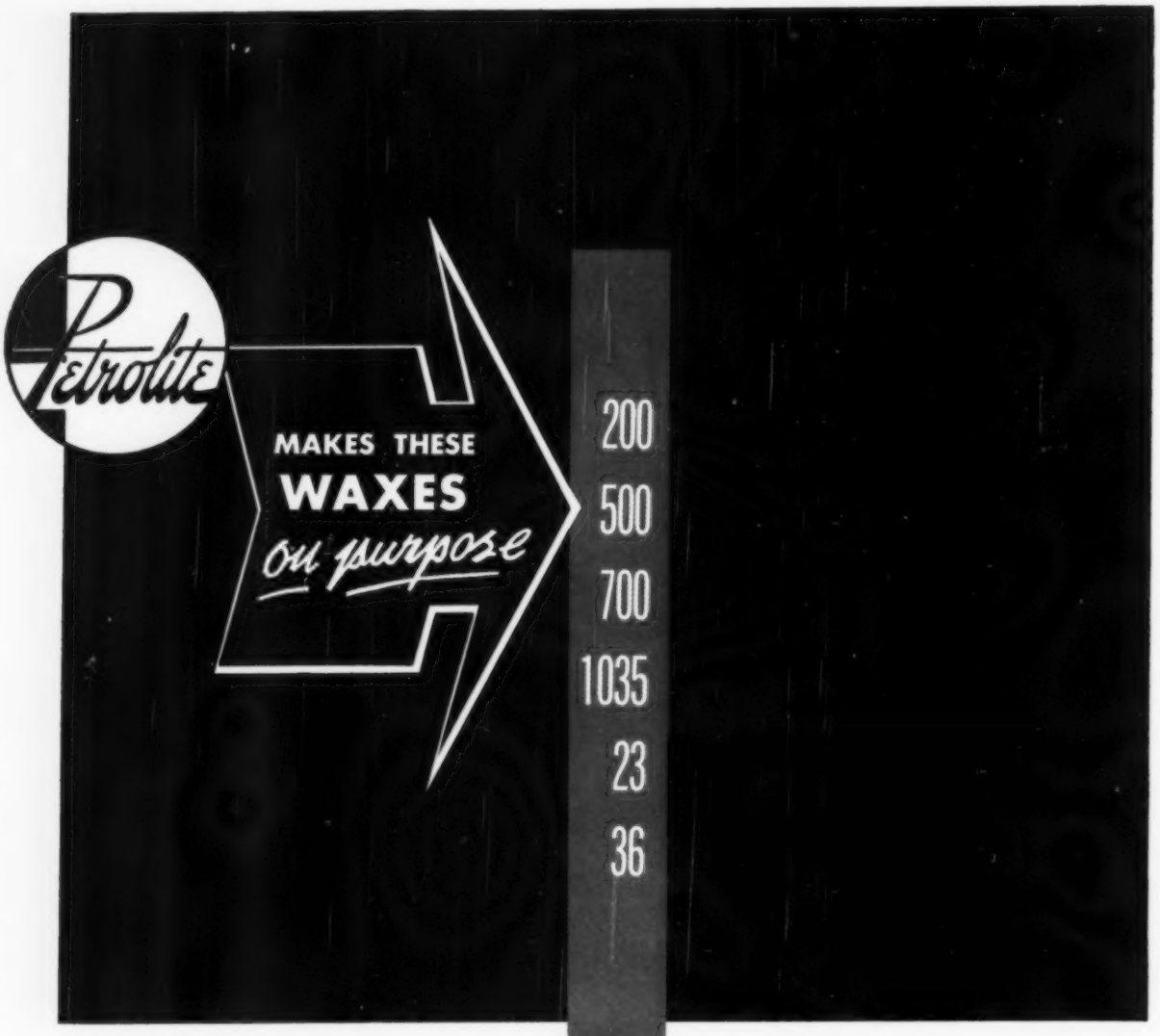

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SPECIFICATIONS

PETROLITE CROWN	Melting Point °F	Penetration with 100 gms.	Color N. P. A.	Acid Number	Sapon. Number
200	190/195	10 max.	Brown	Nil	Nil
500	190/195	10 max.	2 to 2½	Nil	Nil
700	190/195	5 max.	2 to 2½	Nil	Nil
1035	195/200	2 max.	2 to 2½	Nil	Nil
*23	180 min.	4 to 6	4 to 5	20-25	55-65
*36	180 min.	5 to 7	5 to 6	30-35	75-85

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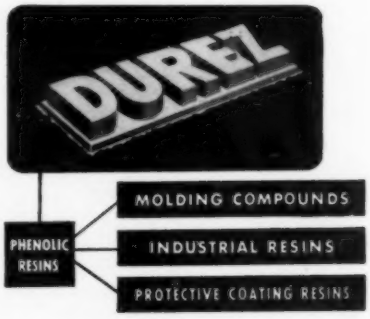

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of the National Sanitary Supply Association

March 23, 24, 25, 26-1952

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CARDIS* 319	180-185	5-7	4½-6	18-20	65-70	EMULSIFIABLE PETROLEUM WAX
CARDIS* 320	180-185	5-7	4-5	30-32	80-85	EMULSIFIABLE PETROLEUM WAX
CARDIS* 262	195-200	4-6	BROWN	14-16	40-45	SPECIALLY PROCESSED PETROLEUM WAX
FORTEX*	190-200	3-5	2½-3½	0.0	0.0	MICRO-CRYSTALLINE HARD AND PLASTIC
MEKON* B-20 MEKON* A-20 MEKON* Y-20	190-195 190-195 190-195	3-5 3-5 3-5	BROWN-BLACK AMBER-6 MAX. YELLOW-3-3½	0.0	0.0	MICRO-CRYSTALLINE HARD AND BRITTLE
WARCO* WAX 180	180-185	4-7	WHITE	0.0	0.0	MICRO-CRYSTALLINE HARD AND BRITTLE
WARCO* WAX 150	145-150	20-25	BROWN YELLOW	0.0	0.0	MICRO-CRYSTALLINE PLASTIC
WARCOSINE*	145-150	15-20	WHITE	0.0	0.0	MICRO-CRYSTALLINE PLASTIC
PARAFFIN	131-133	FULLY REFINED				CRYSTALLINE
SUGAR CANE WAX	174-178	2 MAX.	TAN	23-28	65-77	VEGETABLE WAX

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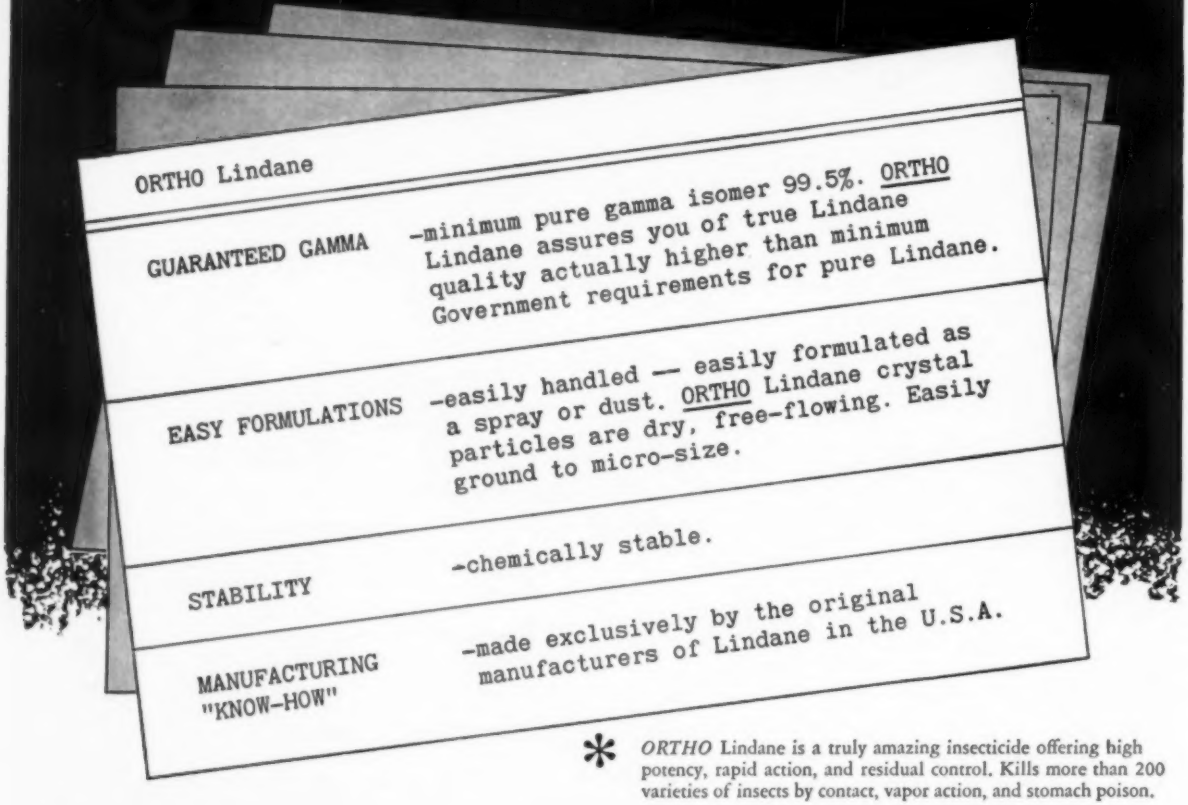

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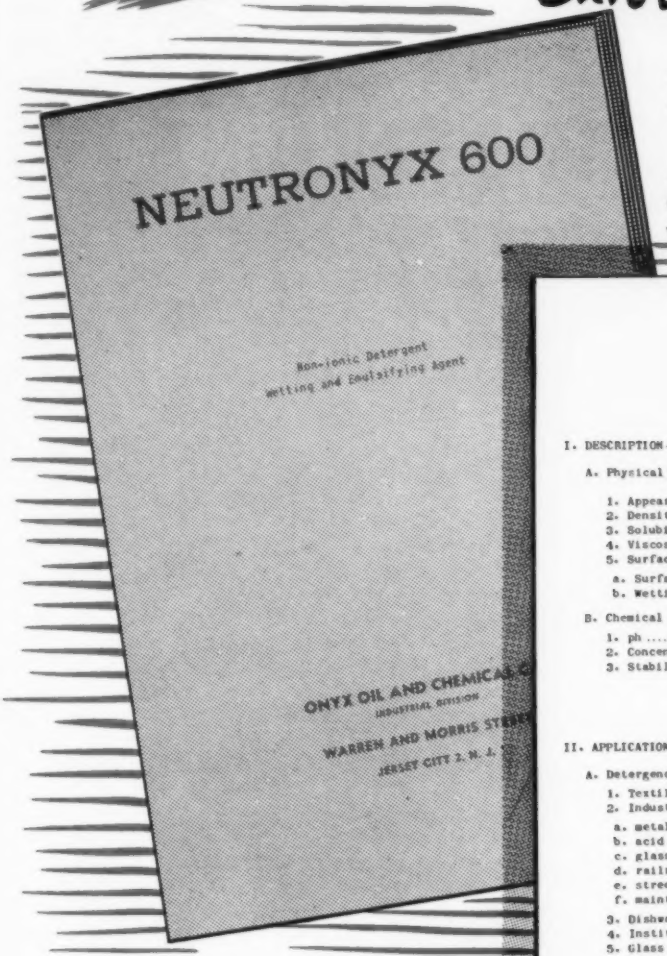

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N.S.S.A. Meets March 23-26

NSSA's 29th annual convention and trade show set to open at Conrad Hilton Hotel, Chicago

THE emphasis will be on sales and merchandising at the discussion sessions of the 29th annual convention and merchandise exposition of the National Sanitary Supply Association, being held Sunday through Wednesday, March 23-26, at the Conrad Hilton Hotel, formerly the Stevens, Chicago. New sanitary chemicals and dispensing, application and cleaning equipment will be on display at the booths of 130 manufacturers and distributors occupying all of the exhibit space in the Conrad Hilton Hotel's large exposition hall.

The 1952 N.S.S.A. meeting returns to Chicago and the Conrad Hilton Hotel, scene of the 1950 gathering, after having been held in Cleveland in 1951. It is expected to be the best attended and have the largest number of exhibits of any of the association's annual gatherings, according to Leo J. Kelly, executive vice-president and operating official. Advance registrations are running ahead of those of former big years, Mr. Kelly stated.

This year's program arrangement is closely patterned after those of previous four-day annual meetings of the N.S.S.A., with exhibits open on all four days and post-luncheon discussion sessions set for the afternoons of the second and third days of the meeting: Monday, March 24 and Tuesday, March 25. In addition to panel and individual discussions of sales, advertising, merchandising, sales training and related problems, association business, including the election of officers, will be taken up at the sessions following the group luncheons.

Hours during which the exhibit hall will be open, as outlined in the advance program are: Sunday, 10:00 a. m. to 7 p. m. (open to non-members); Monday, 10:00 a. m. to noon and 4:30 p. m. to 9:00 p. m.; Tuesday, 9:00 a. m. to 12:00 noon only; Wednesday, 9:00 a. m. to 1:00 p. m., at which time final closing of exhibits takes place.

The meeting formally convenes Monday, March 24, at 1:45 p. m., following a group luncheon in the Boulevard Room. This session, presided over by Searcy Ridge, head of Gateway Chemical Co., Kansas City, Mo., and N.S.S.A. president, opens with the invocation and Mr. Ridge's address of welcome as president. Reports of other N.S.S.A. officers, including those of Leo J. Kelly, executive vice-president; John F. Walsh of Tesco Chemicals Co., Atlanta, Ga., vice-president; Walter O. Krebs of American Standard Mfg. Co., Chicago, treasurer; Philip Shore of Shore Metal Products Co., Los Angeles, secretary of the board and the introduction of the regional vice-presidents are the next order of business. After the appointment of the nominating committee, two presentations on sales and sales training follow. These are to be presented by W. H. Gove, sales development manager of Minnesota Mining & Manufacturing Co., St. Paul, whose presentation is entitled, "What's Old." It deals with selling technique. The other presentation, "For Whom the Sales Toll," will be given by J. S. Crockett, sales training manager of Minnesota Mining & Manufacturing Co.

The Wednesday afternoon session, also presided over by Mr. Ridge, opens with the report of the nominat-

Searcy Ridge, President

John Walsh, Vice-Pres.

Leo J. Kelly, executive vice-pres.

ing committee and the election of officers, directors and regional vice-presidents. Two panel discussions and a talk on the subject of the voice and its relationship to sales personality are to be presented next.

Participating in the panel on "How to Advertise Effectively on a Small Budget," will be Carl Lien, Lien Chemical Co., Franklin Park, Ill.; Lacy E. Crain, Conco Chemical Co., Dallas, Tex.; David Ginsburg, Scientific Supply Co., Denver; and Frank Hoffman of F. W. Hoffman & Co., Philadelphia. Following individual discourses by members of the panel, there will be questions from the floor directed to panel members.

The subject of "Compensation of Salesmen" will be discussed in the form of a panel and with audience participation. Panel members scheduled to appear include S. J. Bockstanz,

(*Turn to Page* 151)

Walter O. Krebs, treasurer

Philip Shore, Sec'y

Samuel Newman, East V. P.

H. J. L. Baum, West V. P.

W. K. Fawcett, South V. P.

J. Wheeler, Sr. Central vice-pres.

Sidney P. Solomonson, Jr., Southwest V. P.

Al Candy, Jr., Director

Malcolm Zucker, Director

List of 1952 N.S.S.A. Exhibitors

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Sell Direct

Complete lack of a uniform sales pattern and with a wide diversity of products sold, as photo of typical sanitary supply jobber's showroom illustrates, make the industry's sales set-up a heterogeneous mixture.

SHALL manufacturers of soaps, cleansers, floor waxes, and other sanitary chemicals and janitor supplies sell direct to industrial and institutional consumers or through jobbers? This has been one of the hottest questions in the trade during the past three or four years. Open discussion of it has been soft peddled chiefly because most people, especially representatives of manufacturers, are loath to go on record with their opinions. It is strictly a "hot potato" and the less said about it the better, according to some leaders in the industry. But, changing competitive conditions continue to focus more and more attention on the subject as time moves along.

Because everybody in the industry has one or more gripes about the way other people are doing business, it is these gripes which can be considered as the basis of current dissatisfaction. Summed up briefly, jobbers are unhappy when manufacturers who supply them, also sell their customers direct. This may be a case of carrying water on both shoulders where a manufacturer sells to jobbers and to consumers. But the number of manufacturers who do not do this *in some degree* is small indeed. Mostly they have been or are being forced into it by some feature of competition.

Manufacturers are unhappy when they find that more and more of their jobber-customers are slowly but surely becoming manufacturers. Starting with one item, the list soon becomes two and thus it grows. The manufacturer maintains that in circumstances such as this, he has little choice but to lose the business in the territory or sell direct to consumers. Thus, there is the mixed-up situation of certain manufacturers adhering strictly to a "jobbers only" policy in some territories and selling anybody and everybody in other localities.

Throughout the entire field producing and selling cleaning and sanitation materials and equipment, no hard and fast rule exists on means and methods of selling. In fact, it would be difficult to locate even two companies whose sales policies are exactly alike. Many of the larger manufacturers who prefer to do business in carloads will sell anybody at their listed quantity prices. Whether it be a railroad, an institution, a hotel chain, or a local jobber, they care not. Their products are for sale to everybody who will pay the price. Obviously, this type of seller is not geared to handle small lots for quick local delivery and this business must be left for local firms, whether jobbers, manufacturers or a combination of both.

No Sales Pattern

IF all the methods of selling sanitary and janitor supplies were placed end to end, they would probably reach from New York to San Farncisco and back. No clear-cut pattern is adhered to throughout the trade. Some firms manufacture three items and job several hundred. Others manufacture most of their own chemical line such as soaps, cleansers, waxes, polishes, and the like, and job only equipment and accessories. No single company manufacturers every item which it sells. And two out of every three so-called jobbers make one or more items in their line. Some manufacturers sell direct to consumers exclusively through large sales staffs which blanket a number of states or sometimes the entire country. A few sell exclusively through jobbers. Still others, as noted before, sell both to users and to jobbers.

With this complete lack of a uniform sales pattern and with a wide diversity of products sold, no wonder exists that a heterogeneous mixture comprises the sales set-up of the industry. By viewing the sanitary supply sales problems first from the angle of the local jobber or jobber-manufacturer, and then from the angle of the manufacturer alone, the reasons for these problems become more apparent. The ideal sanitary supply set-up would be for a manufacturer to make everything he sells, to sell everything under

or thru Jobbers?

his own brand, to stock goods in every large city and county in the country with his own local delivery services, and to have his own men call on every buyer and potential buyer from coast to coast. Obviously, such a set-up is impossible. Only three or four organizations in the country even attempt to come close to this type of business.

Local Jobber's Problems

LOOKING first at the local jobber's problems, we find him stocking and selling anything from 500 to 1,500 different items. Some of them are sold under his own brands, but many are the manufacturers' brands. The trend, however, appears to be toward a larger proportion of private brands, the idea being that local sales promotion in behalf of his own brands by a jobber has advantages over selling the brand name as well as the goods of the manufacturer supplying him.

Furthermore, the large number of items which a local jobber's salesmen must carry in their price books precludes any real sales effort in behalf of any one or two items on the list. Multiply this by the large number of calls which a supply salesman makes and the opportunity for detailed selling by salesmen in the midst of their routine calls is palpably small.

In the case of restaurant, hotel and bar supply houses, and paper and hardware jobbers, the matter of private brand versus manufacturer's brand assumes a different aspect as compared with the regular janitor supply and sanitary products distributors. In the case of restaurant and hotel suppliers, cleaning and sanitation chemical specialties and sanitation accessories are considerably more in the category of side-lines. Consequently, these suppliers lean more toward selling under the manufacturer's brand whether they are nationally-advertised products or not.

Manufacturers who feel that they require personal sales promotion for their specialties of necessity must look beyond the average supply jobber. The latter simply cannot afford detailed sales efforts on individual products under the manufacturer's brand. Where a jobber has the exclusive sales rights to any product within a given territory or where he or his salesmen are subsidized by the manufacturer, the incentive to push the product naturally is greater. However, many jobbers prefer to concentrate sales efforts on their own brand lines in spite of the advantages of exclusive representation for widely advertised brands. Behind this latter may lie the thinking that at some future date, they will do their own manufacturing in whole or in part.

Because much of the business of local supply houses is made up of a great number of small accounts, the credit problem is a large one. And this is one of the chief headaches which is avoided by manufacturers who sell through jobbers. Most manufacturers who supply the jobbing trade over wide areas, some on a national basis, simply are not geared to handle these numerous small credits. This is probably one of the most important deterrents to more manufacturers selling direct, this plus their inability to service accounts promptly. But it does not deter them where individual large industrial or institutional accounts are involved and which are the chief manufacturer-jobber bone of contention.

A glimpse at the sanitary chemical manufacturer's sales problems shows an ever increasing number of jobbers going into the manufacture of more and more products. Obviously this cuts out the manufacturer previously supplying the jobber. If the manufacturer would continue to keep his former volume in this territory, he does it by direct sales or through competing jobbers. Often, strong competitors of his former jobber-customer are not available and he has no choice but to sell direct or quit the territory. Not infrequently, the latter has proved to be the course of discretion.

Where a manufacturer introduces a new specialty and attempts to do the promotional work through the average supply jobber, he invariably finds that the latter cannot do the job for him which he wants done. If a jobber gave an appreciable part of his sales time to such promotional efforts, he would undoubtedly find that he was essentially in business to serve innumerable manufacturers and not himself. Discussion of this subject with local jobbers indicates that they, just like the manufacturer, are interested primarily in what they get out of any deal and what assurances of continued profit the future holds. Most jobbers were found to be hard-headed merchants, not Pollyannas.

The opinion among jobbers appears quite widespread that the manufacturer, be it of a sanitary chemical, a floor machine, a piece of mopping equipment, or what not, makes a very fat margin of profit and that he, the jobber, gets only a comparatively thin cut. This, of course, has been one of the important incentives for jobbers to get into manufacturing. Over the past ten years, a few with whom this subject has been discussed have changed their views somewhat, not only as to costs, but also in regard to manufacturing know-how.

A recent inquiry which came from a small jobbing firm in the East asked for detailed instructions covering the manufacture of liquid hand soap. They stated that they could not afford a regular chemist owing to the present limitations of their manufacturing plans, but were anxious to make their own soap to save money. The advice

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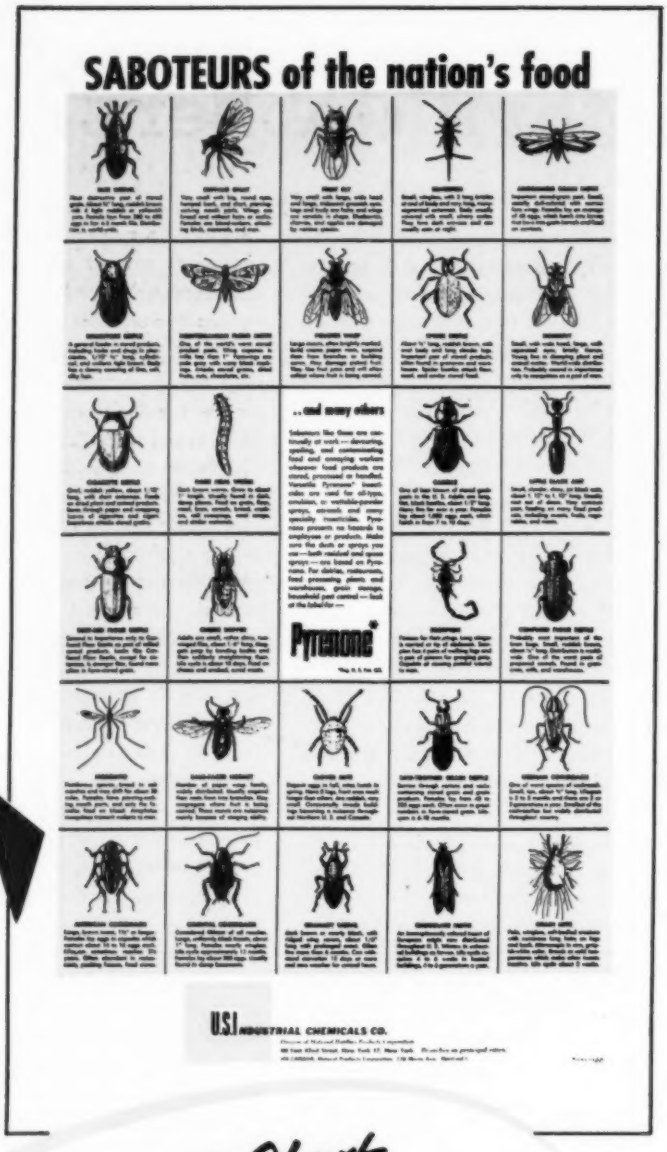

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which was sent back to them was probably not appreciated. It stated in brief that if they could not afford an experienced soap maker or chemist, they most certainly could not afford to do their own manufacturing,—and if they were wise, would continue to buy their soap. Their minds likewise were disabused of the idea that they could save money without real manufacturing know-how. The great risk of spoiled batches, poor quality and rejected goods were pointed out to them. But like a lot of others who have been similarly advised over the years, they probably will plunge in anyhow and learn the hard way.

The range of items (up to 1500) sold by sanitary supply jobbers and distributors includes metal goods, floor machines, brooms, brushes, mops and hundreds of sanitary chemical items. With such a diversified and large line of products salesmen can do little more than "hit the high spots" of their lines.

Manufacturers' Prices

IN discussing this controversial subject with a few manufacturers recently, several significant comments were received. One manufacturer blamed much of the trouble today on the manufacturers who sell soaps, cleansers, floor waxes to consumers at prices which do not permit other manufacturers to supply the jobber at a price where the latter can make a decent profit. The jobber at no time has a chance to get this business, so his supplier refusing to sit idly by, goes after it direct. Thus, the finger is pointed at other manufacturers, not the jobber. And this type of situation becomes more acute when competition is keen as it has been in recent months.

Another manufacturer who sells both direct and through jobbers, and openly admits it, pointed out that the credit risks in selling small consumers are numerous, but this is also true in the case of a large percentage of supply jobbers. He placed those jobbers whose credit does not warrant selling on open account as high as fifty per cent. He stated that the number of strong, good-credit jobbers in the sanitary supply field would not exceed a few hundred at most. Under the circumstances, he stated that he sells the few and does not attempt to do business with the rest.

A leading mid-west manufacturer stated that he positively opposes manufacturers selling direct to consumers. He pointed out that no manufacturer can cover all institutions, factories, schools, and the like, and that if the over-all sanitary chemical business is to keep a high volume and expand, the need for the local jobber to "comb" the territory is vitally necessary. Otherwise, he held, the jobbers gradually will be squeezed out or forced into their own manufacturing, and that then only the high spots of the market will be hit, volume will suffer and prices will be subject to competitive influences which will leave no profit in the business. He advocated a strict continuation of the straight manufacturer-jobber relationship, adequate protection and profit for the jobber, all in the interest of "not killing the goose that lays the golden eggs."

Lost Jobber Accounts

TWO other manufacturers expressed opinions which were tinged with considerable bitterness. Both recently had lost several lucrative accounts owing to "jobbers" expanding their manufacturing operations to include products which they had been supplying. In one instance, the "jobber" had been an account of the manufacturer for thirty years.

Both spokesmen maintained that they had contemplated selling consumers direct for several years and that the recent defections from the ranks of their old customers had about made up their minds for them. If their declarations were sincere, they both now are selling direct to consumers in the territories in question, concentrating their sales efforts on the accounts of their former customers. And the prices which they are quoting do not leave too much margin for the local supplier. That such activities grow more from bitterness than from sound evaluation of the situation, there seems to be no doubt.

Another leading eastern manufacturer who expressed himself as basically opposed to direct selling to consumers, stated that "where a manufacturer repeatedly fails to obtain distribution or gain a receptive response in his territory, he is correct in bidding for consumer business. But, under no other circumstances." He said that by competing directly with the jobber on all counts, the manufacturer can force the elimination of the jobber in time and the loss of his services as a local distributing and sales promotion agent, and that the industry as a whole would

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be hurt by the removal of this regular selling force.

Private Vs. National Brand

THE question of whether the jobber should sell under his own private brand or the manufacturer's brand has been discussed on numerous occasions. Some jobbers sell principally their own brands, these being chiefly larger firms. Others sell mostly well-known nationally advertised brands. These latter feel that they cash in on the value of the manufacturer's sales promotion and advertising, and that the products have greater consumer acceptance and are easier to sell.

Jobbers who sell under their private brands state that by pushing these brands they are building the market position of their own goods, that the wider margin of profit compensates for less consumer acceptance and greater sales effort required. Some manufacturers sell only under their own brands and insist that they be resold as such by the jobber. This is, of course, particularly true in the case of nationally-advertised products.

Confidence violation by suppliers of private brand goods is not infrequently a problem faced by the jobber. Where his products are made for him, carry his label, and are delivered to his warehouse for later distribution by his own trucks, there is no element of danger that his customers may be stolen away by his supplier. Where deliveries are made by drop shipment, however, such a problem always exists. Manufacturers may "short circuit" on their jobbers merely as a deliberate violation of confidence. However, a check indicates that where this happens, frequently the manufacturer finds that he no longer is getting the business from the jobber, he no longer wants to sell the jobber for credit reasons, or the jobber himself may have lost the consumer's account. The number of deliberate thefts of accounts by manufacturers without a real or fancied reason are probably few. At the same time, jobbers who do a lot of drop-shipment business, unless they deal with a supplier they know well by their own experience, always are in a vulnerable position.

That the question of selling direct or through jobbers could go on and on almost indefinitely seems apparent. Innumerable arguments on a problem with innumerable angles leave any discussion short of a large volume incomplete. But, the subject was summarized quite briefly by the president of one of the trade associations a year or so ago when he said to a jobber who was toying with the idea of making a few products himself: "You stick to your selling and expand the market for all of us, and we'll stick to our manufacturing, and supply you with larger quantities of better products at lower prices. You stay in your own backyard, and we'll stay in ours."

The present manufacturer-jobber system for making and selling every sort of cleaning and sanitation supply and equipment is the culmination of many years of experience. It grew, developed, and was moulded by competition down through the years. It has changed to meet new conditions as they arose, and is still changing. With its many obvious faults, it has done a good job in selling more sanitation and janitor supplies. It is still expanding the market as a whole, the surface of which many authorities believe has not yet been scratched. To break it down over the years ahead by manufacturing ventures of questionable judgment or by deliberate circumvention of the traditional manufacturer-jobber relationship could invite widespread set-back for the whole industry, and well could "kill the goose which lays the golden eggs."

Orkin Sanitation Institute

Formation of the Orkin Institute of Industrial Sanitation with Keith A. Fitch, a qualified sanitarian, formerly of the U. S. Food and Drug Administration, as executive director, was announced recently. With national headquarters in Atlanta, Ga., the organization offers professional consulting, inspection and educational services to industry. Personnel is now sufficient to serve in all parts of the U. S., according to the announcement.

Herman L. Fellton is vice-president. He is a registered professional Sanitary Engineer, and has been active in public health and sanitation for 18 years. Mr. Fellton formerly was a commissioned officer in the U. S. Public Health Service.

Members of the staff include Orman H. Glazier, MPH (Yale), with experience in public health, dairy science and sanitation and bacteriology; Robert Russell, BCE (Georgia Tech), with experience in all phases of environmental sanitation and a consultant to the food processing industries; Max Isbill, with experience in industrial pest control, fumigation and sanitation, and Murray I. Cooper, Ph.D. (Illinois), with extensive training in entomology, plant pathology and sanitation.

An independent board of advisors composed of individuals who are authorities in the field of sanitation will establish policies of the institute. Among the services offered by the institute are quality control advice, suggestions on sanitizing materials and methods, advice on handling and storage of raw materials, etc. It will also offer advice on purchase of processing equipment, sampling and analysis of raw and manufactured materials, etc. Industries to which these services are directed include food using, manufacturing, processing and storage, wholesale and retail food stores, as well as military installations.

New Du Pont Sponge Plant

Construction of a cellulose sponge plant in Columbia, Tenn., to be operated by the film department of E. I. du Pont de Nemours & Co., Wilmington, Del., was to begin early this month. Production is expected to be underway before the end of the year. Early start up of operations is possible because plans do not call for new buildings, but for installation of machinery and equipment in present structures on a 50-acre site on the Duck River, two and one-half miles north of Columbia. The new plant represents an expansion of Du Pont's present sponge production facilities in Buffalo, N. Y. Du Pont introduced cellulose sponges on the market in 1936. Since then the market has broadened to the extent that in 1951 sales of cellulose sponges alone exceeded 1936 sales of all sponges, both natural and synthetic, by 48 per cent.

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Insect Repellents

MANKIND has always been annoyed by the bites and stings of insects. Not so long ago, however, science showed that insects were more than just a nuisance —that they were carriers of many debilitating and often fatal diseases. With this knowledge came a greatly intensified interest in insecticides. More recently, considerable interest was focused on the development of more efficient insect repellents against the annoying, disease-carrying pests.

As remarked by Goldman, (1) repellents have a distinct and important place because they serve, by means of a protective cloud of volatile products about the person, by taste mechanisms, or by other physical or mechanical means, to keep insects away. For those insects which serve as vectors for disease, such as mosquitoes, ticks and various kinds of flies, these repellents have an importance far beyond the prevention of a mere skin bite. In his opinion, persons traveling to tropical or subtropical areas should receive, in addition to their protective innoculations, simple and practical instructions regarding the use of modern insecticides and repellents.

Even in areas where insect-borne diseases do not pose a major threat, repellents serve the important function of preventing the pain, discomfort and annoyance of bites and stings. Moreover, in temperate climates, one cannot overlook the fact that there are many persons who display hypersensitivity to insect bites. (2)

Although a number of useful repellents have been made available, it is generally recognized (3) that the peak of effectiveness and aesthetic appeal in this field has yet to be reached. Hence the search goes on for more effective insectifuges and a clearer understanding of insect repellent mechanisms. Of interest in connection with the latter phase of research are the studies made by Brown (4) on the factors which attract mosquitoes to the human body. Working in Canada, with *Aedes* mosquitoes, he used dummies to determine the influence of temperature, humidity, clothing (including color and texture) and other conditions on the insects. He found that clothes wet with sweat became twice as attractive to mosquitoes as clean ones. The fumes of ether and gasoline increased a dummy's attraction, but chloroform vapors repelled the pests.

The "Ideal" Repellent

SUCH studies, informative as they may be with respect to bite susceptibility, do indicate that much remains to be learned concerning insect repellents. Actually, it can be said that the scientific study of these agents began a little over a decade ago with the pioneer work of Granett (5) at Rutgers University. He not only set up a test procedure, but also suggested the properties of an ideal repellent. It was his belief that, in addition to lasting effectiveness against a variety of insects, the repellent should be odorless or have a pleasing odor; be nonirritating when applied to the skin and harmless when breathed or accidently consumed; have no effect on clothes, such as staining, bleaching or fiber weakening; leave no objectionable "oily" appearance or feel on the skin; and be economical and chemically stable.

Making only minor modifications, other workers have generally accepted these standards. Pijoan, (6) for example, says that the essential goal of a repellent is dependent on the following criteria: (a) It should be cosmetically acceptable, (b) it should be effective for several hours, and (c) it should be relatively nontoxic on skin.

Repellency is, of course, the first consideration in determining how well a compound meets the basic requirements. Best known test (7) is that used at the Orlando, Fla., Experiment Station of the Bureau of Entomology and Plant Quarantine, U.S.D.A., to determine rapidly if a chemical possesses repellent action and also the degree of protection that can be expected. As explained by Dove, (8) this general method of testing a compound is to apply a small amount to the forearm. The arm is then exposed to a large number of hungry mosquitoes in a cage; the time elapsing to the first bite being recorded. Those insectifuges giving protection for 120 minutes against the malarial *Anopheles quadrimaculatus* and 180 minutes against the nuisance mosquito, *Aedes aegypti*, were considered worthy of field tests. This was done by having volunteers, with repellent-smeared, exposed arms and legs, walk in highly infested areas.

In a discussion of the procedure used at the Naval Medical Research Institute at Bethesda, Md., it was explained (9) that the problem of evaluating repellents is a complex one Criteria for such evaluations are briefly as follows: (a) the tests must be carried out under constant environmental conditions, (b) the volunteers making the tests must remain within such an environment at all times since changes in environment tend to prolong the effectiveness of repellents, and (c) the repellents must be tested for toxicity by FDA methods.

Toxicity a Consideration

THERE has been a growing emphasis on the importance of using nonirritating materials of low sensitizing index. Noting that repellents are applied over large areas of the body and are used repeatedly, Goldman (10) stresses the importance of employing only those materials which are known to be safe. When combinations of repellents are suggested, says he, the toxi-

cologic and sensitizing studies must be repeated for the mixture. In addition, the toxicity of the vehicles must also be considered in each case.

Literally thousands of compounds have been tested during the past decade, but only a small number have stood up under critical evaluation. Unlike the older repellents, including citronella oil and similar substances, (11) the newer materials have little or no odor and remain effective for two or more hours, even when the insects are present in large numbers.

Prominent among the few accepted agents are the repellents described by experts (12) of the Bureau of Entomology and Plant Quarantine as being effective and safe when used individually or in combination. These are dimethyl phthalate, dimethyl carbate, "Rutgers 612" and "Indalone." These chemicals, it is noted, vary greatly in their effectiveness against different insects and on different individuals.

Dimethyl phthalate, for example, was found to be efficient as a mosquito repellent, being especially effective against *Anopheles quadrimaculatus*. (8) Brought to light before the war, this colorless, almost odorless liquid has found rather wide use in repellent formulations. Typical is its use as the active ingredient in the following anti-midge emulsion (13) developed for the Department of Health for Scotland:

Lanette wax SX	5 Gm.
Triethanolamine	9 cc.
Oleic acid	27 cc.
Dimethyl phthalate	100 cc.
Water	100 cc.

Like dimethyl phthalate, dimethyl carbate (cis-bicyclo,2,2,1-5 heptane-2, 3-dicarboxylic acid dimethyl ester) is a solvent for nitrocellulose and other synthetics. Useful alone, this compound is sometimes used as a replacement for "Rutgers 612" in certain combinations of repellents.

"Rutgers 612" (2-ethyl-1, 3-hexanediol), made by Carbide and Carbon Chemicals Corp., New York, (14) is colorless and practically odorless. Providing long-lasting repellent action against nuisance mosquitoes and against malaria carriers, "Rutgers 612" is also useful against chiggers and black flies. (15) It is said (16) that its repellent activity against *Aedes aegypti* can be prolonged by combination with an alcohol like isopropyl, benzyl or heptyl alcohol. During the war it was used as an ingredient of two of the camouflage creams made for the Army. (17) Newer and much more elegant cosmetically is the following repellent cream (18) in which Rutgers 612 is the active agent:

Glyceryl monostearate	1.6 per cent
Cetyl alcohol	4.9 per cent
Lanolin	2.4 per cent
Light mineral oil	18.6 per cent
Rutgers 612	2.0 per cent
Veegum*	1.6 per cent
Water	62.6 per cent
Glycerine	5.8 per cent
Triethanolamine	0.5 per cent
Preservative	sufficient

* R. T. Vanderbilt Co., New York, N. Y.

"Indalone" is the trade name used by U. S. Industrial Chemicals, Inc., New York, for their n-butyl mesityl oxide oxalate. (3) It is outstanding as a repellent for flies such as biting stable flies, but is less effective against mosquitoes. (15)

Other compounds have been suggested and tested as insectifuges. Of those tested by the Naval group, (9) *beta*-tetralol (2-naphthol, k,2,3,4-tetrahydro), 2-cyclohexyl cyclohexanol, and 2-phenyl cyclohexanol appeared to be especially useful. Also indicative is the list of successful repellents, together with their physical properties, prepared by Svirbely and his colleagues. (19) In his discussion of the dermatologic aspects of insect repellents, Goldman (19) cites a number of useful agents; the list including some of the compounds noted above. In addition he mentions N-n-butyl acetanilide as being useful against fleas, ticks and chiggers; tributyl phosphate and N-n-amyl carbamide for use against fleas and ticks, and N-propyl, N-diethyl succinamate for some mosquitoes and biting flies.

Numerous Repellent Patents

ALTHOUGH patent claims are not necessarily an index of the value of a compound, quite a number of insect repellents are described in patent specifications. Very interesting is the fact that many of the patents are assigned to various government agencies. Among those available under government license are: 2-ethyl-n-caproic acid, (20) 2-phenylcyclohexanol, (21) isopropyl cinamate, (22) benzyl ether, (23) cyclopentyl ester of 2-oxo-cyclopentanecarboxylic acid, (24) and 2 - ethyl - 2 - (beta - cyanoethyl)-butyraldehyde. (25) Of course patents (14,26) describing repellent compounds have also been granted to representatives of industry. Continued interest in insect repellents for use on the skin is indicated in recent series of patent applications. (27-33)

Those working with insect repellents learned early that compatible combinations of these agents yielded products with a wider insectifugal range. Granett (5) recognized this fact in his pioneering investigations. He developed a repellent composed of diethylene glycol monobutyl ether acetate and diethylene glycol monoethyl ether in a perfumed vehicle of ethyl alcohol and corn oil. (34)

As a result of their extensive investigations at Orlando, the U.S.-D.A. workers (12) found that the following mixtures of repellents are effective against a wider range of insect species and on more individuals than any of their recommended chemicals when used alone:

	A	B	C	D	E
Dimethyl phthalate	3	1	3	2	2
Indalone	1	1	1	—	—
Rutgers 612	1	1	—	1	—
Dimethyl carbate	—	—	1	—	1

It should be noted that while mixtures containing two repellents are fairly effective, they do not repel as wide a range of insects or for such long periods as do the triple mixtures.

Formula A, the best known and most widely used preparation of this group, is often called 6-2-2 mix, a figure obtained by doubling the propor-

By Milton A. Lesser

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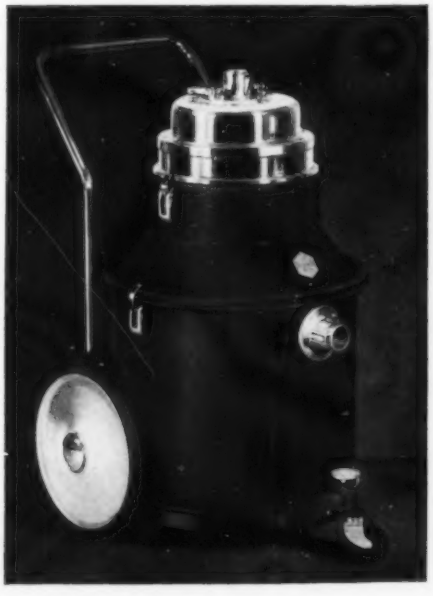

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tions. Found to be valuable as a general-purpose repellent, 6-2-2 was the standard issue during the war. (35) The patent covering this and related ternary preparations was assigned to the Secretary of Agriculture by Travis and Jones. (36)

These workers found, in general, that ternary compounds of this sort gave a repellency greater than the sum of the individual repellencies, thus displaying a synergistic rather than a purely additive effect. Successful repellent action against one insect group usually indicated good protection against the entire family. This enabled 6-2-2 mixture to be used against several additional species of mosquitoes and flies, as well as those for which it was originally designed. (7) Thus, the mixture was effective not only against many mosquitoes and biting flies, but it also gave good protection against chiggers, ticks, sand flies, gnats and other insects. (8)

Later when shortages developed and it became necessary to modify the mixture, a preparation corresponding to formula B was issued to the armed forces. This 1-1-1 mixture appeared equally effective as 6-2-2. A modification of the original 6-2-2 mixture is evident in formula C, in which dimethyl carbate replaces "Rutgers 612." According to the literature (37) of one manufacturer supplying the modified 6-2-2 formula in ready-mixed form, it has been found that dimethyl carbate is equal to or is more effective against *Aedes* mosquitoes than the compound it replaces.

MMRI-448 Best Known

PERHAPS the best known product resulting from the work done at the Naval Medical Research Institute is the repellent called NMRI-448, the initials being taken from the name of the research center. It consists of a mixture of 30 per cent of 2-cyclohexyl cyclohexanol and 70 per cent 2-phenyl cyclohexanol, by volume. Tests with this mixture against *Aedes aegypti* showed an average repellent time of 289 minutes. (9) Follow-up tests indicated an even longer repelling time. Not only was the product effective against disease bearing mosquitoes, but also against other insects, including chiggers, flies, fleas and roaches. (38)

A clear, moderately viscous, non-greasy liquid, NRMI-448 may be used full strength. Since it tends to solidify at about 74°F., a temperature at which it would very likely be used in temperate zones, alcohol is added to lower the crystallization point. An alcoholic solution containing 80 to 85 per cent of NMRI-448 has a protection period ranging from 310 to 340 minutes and crystallizes at temperatures that make it suitable for practically all environmental conditions in which biting insects may be found. (39)

Outside of test batches, NMRI-448 was not used by the armed forces, and research on it bogged down with the end of the war. Subsequently, a patent application was assigned to the Chemical Foundation, Inc., New York; this organization licensing several companies to market the repellent. An alcoholic solution containing 60 per cent of NMRI-448 was recommended. (39)

Of interest here, is the fact that a patent describing similar compositions has recently been granted to Pijoan, (40) one of the original Naval research group. Thus, a repellent may consist of a mixture of 35 parts of 2-phenyl cyclohexanol and 15 parts of 2-cyclohexyl cyclohexanol emulsified with a suitable emulsifier in 50 parts of water.

Other mixtures have been suggested from time to time. One new combination, (41) assigned to the U. S. A. as represented by the Secretary of the Army, comprises a solution of 1-furyl-2, 2-dimethyl-1, 3-propanediol and dimethyl phthalate.

Cream Based Repellents

FOR some time it has been recognized that the incorporation of repellents into cream or ointment bases will not only improve their cosmetic elegance and acceptability, but often increases their efficiency as well by extending the repellent time. Goldman (1,10) mentions that cream vehicles have been suggested by the Orlando Laboratory; cold cream or vanishing cream types of bases being preferred. In discussing such bases, McAllister (3) notes that the cream-type preparations may contain only 10 to 25 per cent of the repellent, but some stable products can be made with up to 60 per cent repellent. Of course, much depends on the type of repellent used. He cites the following experimental formula which has been found satisfactory by the Orlando group for many repellents:

Stearic acid	40.0 Gm.
Potassium carbonate	0.6 Gm.
Glycerine	12.0 cc.
Water	68.0 cc.
Liquid repellent	80.0 cc.

More specific and containing a combination of insectifuges is the following formula for a repellent cream: (18)

Glyceryl monostearate	1.6 parts
Cetyl alcohol	4.9 parts
Lanolin	2.4 parts
Light mineral oil	18.6 parts
Rutgers 612	1.0 part
Dimethyl phthalate	1.0 part
Indalone	3.0 parts
Preservative	sufficient
Veegum	1.6 parts
Water	59.6 parts
Glycerine	5.8 parts
Triethanolamine	0.5 part

Mix the first eight ingredients and heat to 65°C. Add the Veegum to the water slowly, continually agitating until smooth. Add the glycerine and triethanolamine to this liquid gel and heat to 65-70°C. Add the previously prepared mixture to this solution.

Representing a different approach is the jelly-like insect repellent compositions described in Dreyling's (42) patent. An illustrative example calls for:

	per cent
Ethyl cellulose	2.7
Cellulose acetobutyrate	2.3
Propylene glycol monostearate	2.0
Dimethyl phthalate	55.8
Rutgers 612	18.6
Indalone	18.6

Of interest in connection with the growing trend toward convenient, molded, stick-type preparations are the repellent products developed by a group of workers. (43) According to their patent, repellent sticks which are transparent, temperature-stable nonfriable, nonbleeding and easily applied to the skin can be made along the following lines:

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Dimethyl phthalate	12.2 parts
Rutgers 612	18.0 parts
Isopropyl alcohol	31.5 parts
Sodium stearate	20.3 parts
Glycerine	12.1 parts
Distilled water	3.5 parts
Color solution	1.2 parts
Perfume	1.2 parts

Other solid type insect repellents of a more durable nature, have been developed. Some are made with wax bases, (44) while others make use of resinous materials, (45) the modern type of organic agents being used as the insectifuges.

Citronella Oil Still Used

THE older, natural insect repellents still find some use, but their importance has greatly diminished. Citronella oil is, of course, the best known of these older agents. It is used as such or it may be incorporated in ointment or cream bases, with or without other adjunct oils or compounds. An example of an ointment is offered by Lascoff, (46) as follows:

Oil of citronella	16.0 cc.
Oil of cedar	6.0 cc.
Camphor	6.0 Gm.
Alcohol	12.0 cc.
Petrolatum, to make	100.0 Gm.

Probably more elegant cosmetically is a cream (16) consisting of:

Oil of citronella	2.0 per cent
Terpinyl acetate	3.5 per cent
Cedar leaf oil	0.2 per cent
Sandalwood oil	0.3 per cent
Vanishing cream	94.0 per cent

Pyrethrum has also been employed as a repellent. Johnson (47) found that up to seven hours of protection was obtained with one per cent pyrethrins in a "cream" base. This cream, which was quite pleasant to use, was prepared by shaking the following paste with enough water to produce 200 Gm.:

Pyrethrum extract (40% pyrethrins, colorless concentrate)	5.0 cc.
Alcohol	10.0 cc.
Tragacanth	6.0 Gm.
Glycerine	6.0 Gm.

Combinations of natural and synthetic materials are well known to those combatting insects, and repellents are no exception. This is shown in Gertler's (48) patent (assigned to the government) in which an insect repellent is described as consisting of about 60 parts of pyrethrum marc and two parts of N,N-Diethylpiperonylamide.

Since many insects can bite directly through fabrics, repellents are frequently applied directly to clothes to obtain protection. Workers (20, 35) at the Orlando Laboratory have pointed out that while repellents are effective for only a few hours on the skin, they will repel insects for a number of days when applied to clothing. The repellents may be daubed or sprayed on the clothes, but better results are obtained if the fabric is impregnated with the repellent in suitable volatile solvents or in emulsions.

Travis and his associates (12) in this group state that the repellents that provide the most durable treatment of clothing are 2-ethyl-2-buryl-1, 3-propanediol, Indalone, and n-hexyl-mandelate. In studies in which some 375 compounds were used to impregnate clothing, Smith and Burnett (49) found that particularly good results against marsh mosquitoes were obtained with N-cyclohexyl-2-butoxy-ethoxy - acetamide. Other repellent compounds primarily intended for use on fabrics have been patented. (50) Noteworthy in this connection is the fact that quite a number of recent patent applications (51-54) are based on such compounds.

Fabric Treating Compounds

CONSIDERABLE attention has been devoted to fabric-treating compounds effective against chiggers or mites. During World War II in the Southwest Pacific, it was observed that clothing impregnated with dimethyl phthalate as a mosquito repellent, also gave protection against the Kedani mite, carrier of the dread scrub typhus. Subsequent study led to the adoption of a miticidal composition for impregnating clothing. This consisted of equal parts of benzyl benzoate and dibutyl phthalate plus an emulsifying agent, so that a milky emulsion could be formed easily with cold water for use by the soldier. (7)

Considerable work (55,56) has gone into tests to determine the effectiveness and wash - resistance of anti-chigger agents. Travis and his colleagues (12) state that in addition to the clothes-treating repellents already mentioned, benzyl benzoate, diphenyl carbonate and benzil are very effective against chiggers. They note that the action of these materials on chiggers is that of a toxicant rather than that of a repellent.

These workers also report that none of the safe repellents or toxicants commonly used for treating clothes will provide complete protection against ticks. However, a high degree of protection can be obtained with n-hexyl mandelate, Indalone, dimethyl carbate and others. Work by Brennan (57) indicates that butylacetanilide has excellent potentialities as a repellent against ticks. Benzyl cyclohexanol and phenyl cyclohexanol also showed promise.

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Aerosol Insecticides...

Their Evaluation Against House Flies, Cockroaches

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PART II

TESTS were conducted with house flies in the 1000-cu. ft. chamber to determine the effect of temperature on the knockdown and 24-hour kill of house flies. Table II shows the results of tests at average temperatures of 69.7°F. and 80.3°F. using a high pressure aerosol (70 psig. at 70° F.) and the results of a similar test at average temperatures of 70.1°F. and 79.6°F. using a low pressure aerosol (38 psig. at 70°F.). It can be observed from the results that the higher temperatures markedly increase knockdowns and mortalities. It is believed that these increases are caused by the greater activity of the flies at the higher temperatures which result in the insects accumulating a greater number of aerosol particles. This is in accord with the studies made by David (1946) and David and Bracey (1946). It can be concluded that careful temperature control is necessary to obtain reproducible results.

TABLE II
Effect of Temperature on Aerosol Fly Tests

Formula	Temperature, °F.	Dosage Average g./1000 cu. ft.	No. Tests	No. Cultures	Per Cent Aerosol Test Knockdown 2 m.	5 m.	10 m.	15 m.	% A.T. KD. Mortality 24 Hrs.
HIGH PRESSURE AEROSOL									
Formula B (0.4% Pyr. 2.0% P. B 1% DDT)	69.7	3.5	7	7	9	27	44	74.8	74.0
Formula B	80.3	3.1	7	7	19	48	65	93.8	93.8
LOW PRESSURE AEROSOL									
Formula A (0.4% Pyr. 1.0% P. B. 1% DDT)	70.1	3.2	7	7	4	7	22	53.2	49.0
Formula A	79.6	3.1	7	7	5	21	52	84.6	84.1

3. *Effect of Height and Manner of Aerosol Discharge on House Flies*

AEROSOL tests were run in the 1000-cu. ft. test chamber to determine the effect of aerosol discharge at different distances from the ceiling on knockdown and mortality. Table III shows that the discharge from the higher level produced a slightly greater knockdown and kill. Apparently discharge from the higher level may give more uniform distribution and cause the aerosol particles to remain suspended longer than discharge from the lower level. Similar results were obtained by McGovran and Fales (1946) who showed that caged flies exposed low in the chamber had higher mortalities than those exposed high in the chamber.

Extensive aerosol tests in the Peet-Grady chamber in which wide variations in results were found to be caused by failure to control the height and direction of aerosol discharge led

TABLE III
Effect of Height of Aerosol Discharge on House Flies

Formula	Distance from Ceiling Ft.	Dosage Average g./1000 cu. ft.	No. Tests	No. Cultures	Per Cent Aerosol Test Knockdown 2 m.	5 m.	10 m.	15 m.	% A.T. KD. Mortality 24 Hrs.
Formula C (0.4% Pyr. 1.0% P. B. 1.0% Methoxy.)	1	3.2	9	3	6	22	38	71.7	71.0
Formula C	2	3.1	9	3	4	14	30	63.4	62.3

* Presented at 38th annual meeting, C.S.M.A., Washington, D. C. Dec. 4, 1951.

us to adopt an adjustable fixture to insure introducing the aerosol mists in a standard manner. McGovran and Fales (1947) describe a swinging shutter apparatus which accurately controls both dosage and manner of discharge which has been adopted by some industrial laboratories.

TABLE IV

Effect of Slow-Delivery and Fast-Delivery TOTA Dispensers

	Dosage Average g./1000 cu. ft.	No. Tests	No. Cultures	Per Cent Aerosol Test Knockdown 2 m.	5 m.	10 m.	15 m.	% A.T. KD. Mortality 24 Hrs.
Slow TOTA	2.8	6	2	11	28	42	67.2	66.8
Fast TOTA	3.1	6	2	12	28	46	70.0	69.7

4. *Effect of Slow-Delivery and Fast-Delivery TOTA Dispensers*

AT the request of the CSMA Aerosol Division Scientific Committee, tests were conducted in the Peet-Grady chamber with slow and fast delivery-rate TOTA dispensers. The fast-delivery TOTA discharged 13.9 grams per 10 seconds, and the slow-delivery TOTA discharged 9.2 grams per 10 seconds at 80°F. The test units were selected by taking the dispensers with the slowest and fastest delivery from a group of 60 TOTA units. Only one of the 60 dispensers had a delivery rate outside the specified range of eight to 15 grams per 10 seconds at 82 ± 2°F. Table IV which records tests by the large-group method shows there was no significant difference in Aerosol Test Knockdown Mortality and 2, 5, 10, and 15-minute knockdowns between the low and fast-delivery dispensers. A small-group method test with the above aerosols also confirmed these conclusions, the slow and fast TOTA having 52.5% and 54.7% 15-minute Aerosol Test Knockdowns, 50.0% and 52.2% Aerosol Test Knockdown Mortalities, and 70.8 and 71.9 Aerosol Test Mortalities respectively. These small-group tests employed nine replicates over three cultures. It can be concluded that within the range studied delivery rate of TOTA dispensers is not an important factor.

5. *Effect of Different Size Test Populations*

AEROSOL tests were conducted in a Peet-Grady chamber with a low pressure aerosol and the TOTA on groups of 10, 100, and 500 house flies. The flies in the 10 and 100-group tests were chilled and selected to give equal numbers of males and females. The sex ratio in the 500-fly groups, which were also chilled, were not determined, but previous studies showed them to be in the 50:50 ratio range.

It can be observed from test results shown in Table V that both formulations demonstrate increased knockdown and mortalities as the number of flies in the test groups is increased. It is surmised that possibly there is more movement of flies by what might be termed a "fly disturbance factor" in the larger size test populations. Increased movement could cause a greater aerosol particle accumulation resulting in increased knockdown and mortality.

6. *Aerosol Test Knockdown Mortality and Aerosol Test Mortality Comparisons*

AEROSOL tests by the TOTA method were conducted in the Peet-Grady chamber using both the small and large-group test procedures with two formulas that were thought to have a biological activity on flies approaching that of the TOTA formula. Up flies were captured and held for mortality counts in the small-group tests but were discarded after counting and considered as alive in the large-group tests. The test formulas were as follows: Formula E, 0.4% pyrethrins, 1.0% piperonyl butoxide, 13.6% petroleum distillates, and 85% 50:50 F-11 and F-12, and Formula F, 0.2% pyrethrins, 2.0% 264, 2.0% methoxychlor, 15.8% petroleum distillates, and 80% 50:50 F-11 and F-12.

In the TOTA method, an experimental formulation is considered as "meeting the standard" if its average mortality and knockdown are equal to or greater than those of the TOTA run in conjunction with it. "Equal to" is interpreted as meaning that the results with the experimental formulation do not differ by more than five percentage points from the results obtained with the TOTA.

Results of our small-group tests using six tests over three cultures are shown in Table VI. It will be noted that both E and F exceed the TOTA in 15-minute knockdown, and that both meet the standard on the basis of Aerosol Test Knockdown Mortality comparisons; however, while E meets the standard on the basis of Aerosol Test Mortality, F fails to qualify by a rather wide margin. The failure of F to meet the standard is caused by the relatively low kill of captured up flies as contrasted with the relatively high kill of captured up flies with the TOTA. Thus, certain formulations may or may not meet the standard, depending on a choice of the two official TOTA mortality determinations.

TABLE V

Effect of Test Population Size on Aerosol Knockdown and Mortality

Formula	No. Flies	Dosage Average g./1000 cu. ft.	No. Tests	No. Cultures	Per Cent Aerosol Test Knockdown 2 m.	5 m.	10 m.	15 m.	% A.T. KD. Mortality 24 Hrs.
Formula D (0.4% Pyr. 1.0% P. B. 1.0% Methoxy.)	10	2.8	10	5	21	52	72	81.2	72.6
TOTA	10	3.0	10	5	14	29	40	50.6	50.6
Formula D	100	2.8	10	5	25	52	71	83.2	77.9
TOTA	100	3.1	10	5	24	36	49	63.6	62.2
Formula D	500	2.8	5	5	29	63	80	89.4	88.9
TOTA	500	3.2	5	5	12	34	49	69.9	69.7

TABLE VI

Aerosol Test Knockdown Mortality and Aerosol Test Mortality Comparisons

Formula	Dosage Average g./1000 cu. ft.	Per Cent Aerosol Test Knockdown 2 m.	5 m.	10 m.	15 m.	% A.T. KD. Mortality 24 Hrs.	% A.T. Mortality 24 Hrs.
Formula E (0.4% Pyr. 1.0% P.B.)	2.5	32	60	70	84.6	73.1	74.0
Formula F (0.2% Pyr. 2.0% 264 2.0% Methoxy.)	2.7	19	31	52	62.0	51.6	54.9
TOTA (0.4% Pyr. 2.0% DDT)	2.7	20	32	47	58.6	55.3	72.2

In tests by the large-group procedure, 15-minute knockdowns of 89.4, 74.2, and 72.0%, respectively, were obtained with E, F, and the TOTA. These six tests over three cultures showed 86.9, 66.5, and 71.3% respectively, for E, F, and the TOTA in the Aerosol Test Knockdown Mortality determinations, agreeing with similar determinations by the small-group procedure.

7. *Effect of Aerosols Used as Space and Direct Applications on Cockroaches*

TESTS were conducted in the 1000-cu. ft. aerosol chamber with large American and oriental nymphs and adult German males. In each test, 20 cockroaches of each species were placed inside a stainless steel hoop 32 inches in diameter and three inches high located on the chamber floor. The inner wall of the hoop was lightly greased with a vaseline-mineral oil mixture. Gray bogus paper was used as a floor surface and renewed for each test. The roaches were exposed to the aerosol mists for 15 minutes, and knockdown[1] counts were made at five, 10, 15, and 30-minute intervals. Dead[2] and moribund[3] counts were made at 24 and 48 hours. Seven replicates of both the space and direct application tests were conducted.

In previous aerosol space application tests conducted with Formula B (high pressure aerosol, 0.4% pyrethrins, 2.0% piperonyl butoxide, and 1.0% DDT) dosage studies of 24 to 296 grams per 1000 cubic feet were made on large nymphs of the American and oriental cockroaches. At a dosage range of 87 grams per 1000 cubic feet, the 30-minute knockdowns of American and oriental roaches were 20 and 10%, respectively, and the 48-hour kill was 90 and 60% respectively. As a result of these and similar tests, a dosage of 75 grams per 1000 cubic feet was selected as a standard aerosol space treatment dosage in our cockroach tests. Similar preliminary tests led us to adopt a standard dosage of five grams for direct applications made from a height of 30 inches.

When the aerosol is applied as a space application, it is applied into the upper portion of the room and is not directed on the cockroaches in the hoops. When an aerosol dispenser is used in a direct application aerosol test, the dispenser is provided with a shortened siphon tube so that when it is inverted to spray directly downwards the opening of the siphon tube will be submerged in the liquid contents and will not discharge the gas alone.

It can be observed from Table VII that when Formula D or the TOTA is used as a direct application at the five-gram dosage it is usually more effective against the three species studied than a 75-gram per 1000 cubic foot dosage of the same formulas applied as a space application. These results are not surprising when one considers that the direct applications result in approximately 1.7 times the dosage per unit area of the space applications. The relative effectiveness of aerosols as space applications against roaches can be weighed when we recall that the standard dosage in the TOTA method for house flies is 3.0 grams $\pm$ 0.5 gram per 1000 cubic feet (Anon., 1950). In our opinion, directions on labels for use of aerosols against roaches should also include recommendations for direct application treatments, particularly where the roaches are in crevices. In this test, it can also be observed that the larger American and oriental nymphs are, in general, more resistant

TABLE VII

Effect of Aerosols on Cockroaches When Used as Space and Direct Applications

Formula	Aerosol Space Application 75 g./1000 cu. ft. Av. % KD. 10 m.	30 m.	Avg. % 48 Hr. Dead & Morib.	Direct Spray Application 5 g. from 30" Height Av. % KD. 10 m.	30 m.	Avg. % 48 Hr. Dead & Morib.
AMERICAN ROACHES						
TOTA	1	15	26	4	25	45
Formula D (0.4% Pyr. 1.0% P. B. 1.0% Methoxy.)	1	34	66	9	54	75
ORIENTAL ROACHES						
TOTA	0	9	46	9	28	40
Formula D	4	30	51	14	47	81
GERMAN ROACHES						
TOTA	3	5	28	11	49	85
Formula D	15	44	99	39	71	100

[1] In cockroach *knockdown*, as a result of insecticide applications, the roach is considered down when no longer capable of maintaining its normal upright position, normal locomotion, and shows evidence of paralysis. Ordinarily the larger roaches when down rest on their backs while the German roaches may be in any position.

[3] A *moribund* cockroach is one that is alive but partially paralyzed and capable of limited movement.

[2] A roach is considered *dead* when it shows no movement even when gently probed.

to the application of Formula D and the TOTA, as both space and direct applications, than are the smaller German roach males.

Discussion

IN considering the test results which we have presented, we would again like to emphasize that these studies are of a preliminary nature and that probably the time and effort spent in making all these studies would be required to investigate fully any one of the seven factors we have considered. During the past 20 years, probably over 100,000,000 flies have been reared in laboratories and used for test purposes, chiefly by the Peet-Grady procedure. Workers familiar with the details of the Peet-Grady procedure are well aware of our lack of understanding of certain variables of the method, even following extensive use over a 20-year period. In our opinion, increased efforts could well be directed toward technique studies of the more important test methods and in standardizing procedures for rearing and handling test insects. This would seem to be particularly true of aerosol test methods which are relatively new as contrasted with the older techniques for evaluating liquid household insecticides.

Further studies by both association and co-operating governmental laboratories of aerosol techniques are definitely indicated. Only by such studies can we improve the TOTA method and also develop suitable physical aerosol testing procedures. The Aerosol Division and Insecticide Division Scientific Committees offer ideal facilities for an exchange of studies of techniques.

Summary

PRELIMINARY studies are reported on some factors to be considered in the biological evaluation of aerosol insecticides. Tests with house flies were made on such variables as dosage, test temperature, height and manner of discharge, delivery rate of TOTA dispensers, size of test populations, and type of official mortality determination. Tests with three species of roaches show the relative effect of space and direct applications.

In the studies of dosage on flies, a highly effective formula did not demonstrate great increases in knockdown and mortality when the dosage was raised two- and threefold over the normal range. With a less effective formula, an increase in dosage appreciably raises knockdown and mortality. Increase in test temperature from 70 to 80°F. gave higher knockdown and kill of house flies. Height and manner of aerosol discharge must be controlled to obtain uniform results.

Slow and fast delivery-rate TOTA dispensers in the range studied did not appreciably affect test results. Increase in knockdown and mortality resulted when the number of house flies in test groups were increased from 10 to 100 to 500. Tests with two formulations indicated that the standard may or may not be met according to whether Aerosol Test Knockdown Mortality or Aerosol Test Mortality is used. Space and direct applications with American, oriental, and German roaches showed the two larger species to be less susceptible. Roaches require much greater dosages of aerosols for effective control than house flies. The importance of technique studies was emphasized.

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Insecticidal Paints

Insecticidal properties are imparted to paints by incorporating DDD in the paint product. Commercial DDD for paint is sold as "Dianol" (made by Dianol Sales Corp., Allentown, Pa.). Like the pigment component, Dianol does not dissolve but is suspended in the paint. The product is said to effect permanent residual insecticidal properties.

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Instrument Sterilization

The use of heat and chemicals is sometimes destructive to surgical and other instruments, which are repeatedly sterilized. Studies with solutions of: (1) *Cetavlon*-nitrate, (2) *Bradosol*-sodium nitrate, and (3) borax - formaldehyde - phenol - sodium nitrate, indicated that solutions (1) and (2) caused damage to plating and rust, but that solution (3) caused no such damage. The test was made by immersing surgical instruments for 40 days in the above solutions. It is pointed out that where plated instruments have to be boiled, one pint of A.C. 10-sodium carbonate be added per gallon of water. "A.C. 10" consists of a mixture of 95 per cent light petroleum neutral oil and five per cent of a complex of sodium salts of petroleum sulfonic acids. M. McG. Mallock *Pharm. J.* 167, 4577, 49, 1951.

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Carnauba Wax Substitute

Sugar-cane wax, which is a possible substitute for carnauba, is potentially available in quantity by solvent extraction of the filter muds from the sugar mills. Although the crude wax is dark and soft, it can be hardened and purified by refining and bleaching. The softer components of the wax may be removed by heating under reduced pressure. The residual neutral wax is dark, and closely resembles the product obtained by solvent treatment. The wax may be bleached to give a hard yellow acidic product by treating with chromic acid. *Manufacturing Chemist* 22, No. 11, 427, (1951).

GREATER PROFIT ITEMS

Franklin's Rubber Gloss Cleaner is a concentrated wax-soap cleaner for use on all type floors, walls and trim. No hard scrubbing is necessary because the cleaner actually floats the dirt away. An anti-slip floor product.

Franklin's Rubber Gloss Wax for Linoleum, Rubber, Asphalt Tile, Composition and Wood Floors. Excellent laydown . . . dries to a rich hard luster. It is self-polishing, slip and water resistant. Worn areas can be damp mopped and re-waxed without showing overlaps.

Franklin's "21" Wax is an "extra service" heavy-duty wax for floors subject to unusually heavy traffic. One coat of "21" will often replace two coats of ordinary wax. Especially good for corridors, doorways, elevators, etc. An anti-slip floor product.

Franklin's "SEALIT" is a safe, economical cleaner for use on all non-resilient floors. It is double acting . . . actually seals the surface as it cleans. Contains no harsh alkalies or abrasives. Fine for Marble, Terrazzo, Ceramic Tile, Cement, etc. An Anti-Slip product.

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Makers of famous hand soaps for 40 years
COLLINGDALE PENNSYLVANIA

W. A. Tucker, Director

B. Freudenthal, Director

Guy P. Robbins, Director

N.S.S.A. Meets

(*From Page* 126)

Bockstanz Brothers Co., Detroit; Leo Mooberry, Best Maintenance Supply Co., Los Angeles; J. T. Opie, Opie Brush Co., Kansas City, Mo., and E. H. Paull, United Janitor Supply Co., Seattle.

The final feature of the Tuesday afternoon session will be a presentation, "You Are Better Than You Sound," with Miss Lucile La Chapelle discussing the voice and its relationship to sales personality. The session is slated to adjourn at 4:30 p. m.

The annual banquet and floor show will be held on March 25 in the grand ballroom of the Conrad Hilton,

(*Turn the Page*)

Program of the 29th Annual N.S.S.A. Convention

SUNDAY, MARCH 23, 1952

Registration: 9 A.M. to 5 P.M.
Exhibition Hall Open 10 A.M. to 7 P.M.

MONDAY, MARCH 24, 1952

Registration: 8 A.M. to 7 P.M.
Exhibition Hall open 10 A.M. to 12 Noon. (Exhibition Hall closed during business meeting—12 Noon to 4:30 P.M. Exhibition Hall reopens immediately after business meeting recesses and will remain open until 9 P.M.)

12:30 P.M. Luncheon, Boulevard Room, Conrad Hilton Hotel
1:45 P.M. First Convention Meeting Convened Boulevard Room, Conrad Hilton Hotel. National President, Searcy Ridge, Presiding.
1:50 P.M. Invocation
1:55 P.M. Address of Welcome, President Searcy Ridge.
2:15 P.M. Report of Executive Vice-President, Leo J. Kelly
2:35 P.M. Address of Vice-President, John F. Walsh
2:45 P.M. Report of Treasurer, Walter O. Krebs
3:00 P.M. Report of the Secretary of the Board of Directors, Philip Shore
3:10 P.M. Introduction of Regional Vice-Presidents and Directors
3:15 P.M. Appointment of Nominating Committee
3:20 P.M. "What's Old?" A presentation of Selling Techniques by W. H. Gove, Sales Development Manager, Minnesota Mining & Manufacturing Co., St. Paul, Minnesota.
4:00 P.M. "For Whom the Sales Toll," a dramatic presentation of a unique sales training program by J. S. Crockett, Sales Training Manager. Minnesota Mining & Manufacturing Co., St. Paul, Minnesota
4:20 P.M. Announcements
4:30 P.M. Recess to Tuesday Luncheon, March 24th, 1952, 12 Noon, Boulevard Room, Conrad Hilton Hotel

TUESDAY, MARCH 25, 1952

Exhibition Hall open 9 A.M. to 12 Noon. (Exhibition Hall closed during business meeting and balance of this day. Banquet at 7 P.M.)

12:30 P.M. Luncheon, Boulevard Room, Conrad Hilton.
1:45 P.M. Convention meeting re-convenes. President Searcy Ridge, Presiding
Report of Nominating Committee
Election of Officers, Directors and Regional Vice-Presidents
2:00 P.M. "How to Advertise Effectively on a Small Budget," Panel members, Carl Lien, Lien Chemical Co., Franklin Park, Ill., Shim Lehrman, A. J. Lehrman & Sons, Harrisburg, Pa.; Lacy E. Crain, Conco Chemical Co., Dallas, Tex.; Dave Ginsburg, Scientific Supply Co., Denver, Colo.; Frank Hoffman, F. W. Hoffman & Co., Inc., Philadelphia, Pa. Each of the panel members will give a short discourse on how they have approached the problem and then the audience is requested to present their questions and views
3:00 P.M. "Compensation of Salesmen." A panel discussion with audience participation to determine if there is a better way to compensate salesmen. Panel members are: S. J. Bockstanz, Bockstanz Bros. Co., Detroit, Mich.; Leo Mooberry, Best Maintenance Supply Co., Los Angeles, Calif.; J. T. (Tom) Opie, Opie Brush Co., Kansas City, Mo.; E. H. Paull, United Janitor Supply Co., Seattle, Wash. Each panel member will report his experiences and then the audience is requested to present their questions and views
4:00 P.M. "You Are Better Than You Sound." A challenging discourse on the subject of voice and its relationship to sales personality, by Miss Lucile La Chapelle.
4:30 P.M. Adjourn to prepare for banquet
7:00 P.M. Annual Banquet and Floor Show, Grand Ballroom, Conrad Hilton Hotel.

WEDNESDAY, MARCH 26, 1952

Exhibition Hall open 9 A.M. to 1 P.M.
There will not be a general meeting Wednesday. Final closing of all exhibits will take place at 1 P.M.

beginning at 7:00 p. m.

Exhibits of all types of sanitation and cleaning aids, including soaps, synthetic detergents, insecticides, disinfectants, floor waxes and polishes, sweeping compounds, etc.; a wide range of equipment and devices for applying and dispensing cleaners; floor machines and vacuum cleaners; and brooms, brushes, mops and chamois will be featured in the exposition hall of the hotel. The exhibit hall is open from 9:00 a. m. until 1:00 p. m. the final day of the meeting.

N.S.S.A. CONVENTION COMMITTEES

PROGRAM COMMITTEE

Marshall L. Magee, T. F. Washburn Co.....Chicago
Frank Verda, Wholesale Janitors' Supply Co.....Chicago
Chas. E. Doyle, Riddiford Bros., Inc.....Chicago
George Flanagan, Federal Varnish Co.....Chicago
Max A. Kalmis, Magic Sanitary Products Co.....Chicago

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Walter O. Krebs, American Standard Mfg. Co.....Chicago
John H. Clark, U. S. Sanitary Specialties Corp.....Chicago
Donald Dickson, Sani-Craft Co.....Chicago
Jack Gould, Supreme Chemical Co.....Chicago

EXHIBITION COMMITTEE

George H. Bruesch, Frank Miller & Sons, Inc.....Chicago
J. C. Alden, Paper Container Mfg. Co.....Chicago
J. S. Schwartz, United Sponge Co.....Chicago
Mal Flanagan, Federal Varnish Co.....Chicago
R. T. Stelmore, Lincoln-Schlueter Floor Machine Co.....Chicago

J. S. Crockett (left) and W. H. Gove of Minnesota Mining & Manufacturing Co., St. Paul, who will discuss sales techniques and a program for sales training. Mr. Crockett is sales training manager and Mr. Gove, sales development manager for MMM.

Tin Conservation Studies

"Methods for additional tin conservation with sheet metal materials currently available to the manufacturers of metal cans have been virtually exhausted," according to R. R. Hartwell of the research and technical department of American Can Co., New York, in a paper given at the 45th annual convention of the National Canners Association held recently in Atlantic City.

While tin conservation studies employing currently available materials are underway, any further substantial savings are dependent on the availability of materials not yet in large scale production, namely, chemically treated steel (C.T.S.) and differentially coated tin plate, Mr. Hartwell said.

"With the materials currently available the can manufacturers are directing their efforts to the extension of the use of the so-called 'combination can,' that is, a container with a plain, hot dipped tin plate body and enameled electrolytic tin plate ends. Because the plain body furnishes some type of protection to the enameled ends with light tin coating, such containers perform equally well, if not better, than cans made throughout of heavily coated hot dipped tin plate, and it may be expected that this type of container will be further exploited," Mr. Hartwell stated.

Another means of tin saving mentioned in Mr. Hartwell's paper is that of side seam striping, which is an application of an enamel coat to the side seam of the can body after fabrication of the container—an effective way to extend shelf life of containers constructed with light-coated electrolytic tin plate in the body of the can. Side seam striping is adaptable only to containers for those products normally requiring a fully inside enameled can.

New Water Repellent

The Raintite Manufacturing Co. of St. Louis has recently developed a new masonry water repellent with a silicone base. The product is designed for application to exterior, above grade masonry and is said to develop repellency soon after application. The new repellent can be applied by brushing or spraying and at temperatures as low as freezing. Being clear, it is said to cause no change in masonry appearance. New "Raintite" water repellent penetrates deeply but does not seal masonry pores, allowing the masonry to "breathe". It may be painted. Oil base paints adhere and do not affect the water repellency of the underlying mortar.

The new "Raintite No. 11" silicone-base water-repellent, said to be effective against efflorescence, retails at $5.50 per gallon, $5.40 in five-gallon containers and $5.25 in 55-gallon drums.

Dowd Replaces Loeffler

Patrick Dowd of Monsanto Chemical Co., St. Louis, recently was named acting chief of the Chemicals Branch, rubber, chemicals and drugs division of the Office of Price Stabilization, succeeding Alfred T. Loeffler of Monsanto, who has returned to his regular duties with the company.

SELL The Freshener That Does a Complete Job!

Scent-Flo **THE NEW** *Makes air Fresh as a Daisy*

Completely Adjustable

FAN-OPERATED AIR FRESHENER

SCENT-FLO NEUTRALIZES AND DESTROYS ODORS THE POSITIVE WAY . . . provides "Just a Breeze of Pleasantness." It is precision-made and scientifically developed — the only adjustable unit of its type in the country. Made of lifetime aluminum in gorgeous, permanently anodized metallic colors: Red, Gold, Silver, Green. Unlimited use — handsome enough for any office, showroom, factory or home. The Scent-Flo fan-operated electric scent-conditioner maintains complete control over the uniformity and quality of air freshness — can be easily installed in a matter of minutes. No other method of deodorizing guarantees such continuously effective results at such little cost to its users. Scent-Flo refill lasts *an entire month*. For those already in the deodorizing field — we can offer the finest refills, either disc or liquid, available today.

Strikingly New and Different — the SCENT-FLO AIR FRESHENER is a proved best seller that's sure to be a standout. Guaranteed to give complete satisfaction — build new sales and also repeat business in refills. Prices are right for the customer — profits are right for the dealer. Can be easily handled on a rental or sale basis. Every customer you presently serve is a potential user of Scent-Flo.

ONLY SCENT-FLO CAN BE ADJUSTED TO MEET ALL AREA REQUIREMENTS

DEALER: If your business needs a sure-fire item, WRITE NOW for details.

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HILD FLOOR MACHINES

give you "Something to Talk About"!

A floor machine is a work-horse that's expected to perform without trouble year after busy year. When you are selling Hild Floor Machines, you can talk about the added strength . . . extra wear . . . long-term dependability that are built-in to earn these huskies their reputation for *big performance*. These features become mighty important in competitive selling, where they often spell the difference between a sale made and an order lost.

HILD Floor Machines are available in six models with brush spreads from 11 to 19 inches. All have easily interchangeable attachments to perform *every* type of floor maintenance job on *every* type of flooring. Mail the coupon for complete information.

HILD Portable Wet-and-dry Vacuum

HILD "Shower-feed" Floor Machines with patented Shower-feed Brush (available on all models).

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Gentlemen: Please send free circular, prices and discounts on HILD Floor Machines.

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Technical BRIEFS

Analysis of BHC

Studies of the properties of benzene hexachloride and its related compounds indicate that these are quantitatively decomposed by zinc dust in the presence of water, with a benzene formation from benzene hexachloride, and formation of monochlorobenzene from the heptachlorocyclohexane (Hepta) which is present. This decomposition is readily applied to a method to determine Hepta in BHC.

The method consists of mixing BHC with zinc powder, adding water and heating; adding hydrogen chloride to the mixture and distilling. The distillate is then dehydrated, and the Hepta content determined by the refractive index of the distillate. M. Nakazima and T. Nagaoka *Botyu-Kagaku* 4, No. 16, 183-185 (1951).

Mildewing of Paints

Studies of the mildewing of paints and its prevention indicated that copper 8-hydroxyquinoline is one of the most effective fungicides for this purpose. Since its color is grown-green, its use is restricted to dark-colored paints. The manganese, bismuth, mercury and zinc salts of 8-hydroxyquinoline were tested also, but all were inferior to the copper compound. Phenyl mercurials were found highly effective as a group, and generally superior to the pyridyl mercurials and mercuric chloride. The efficacy of the phenyl mercurials is more nearly proportional to the concentration of compound used than to the concentration of mercury. Chlorinated phenols are less effective than the phenyl mercurials, but tetrachlorophenol may be used in partial replacement of copper 8-hydroxyquinoline. Among newer fungicides showing promise are the copper salt of *N*-nitroso-phenylhydroxylamine and Se diethyl dithiocarbamate. Controlled experiments suggest that spores from the atmosphere are a more potent source of mould "infection" on paint films than is infection of the substrate. In general, while sterilizing the surface to be painted and incorporation of fungicide in the undercoat are helpful, the most important factor in the control of mildew is the amount of fungicide available in the finish coat, and more particularly at the surface of the finish coat. *Paint and Varnish Production*, 41, No. 2, 8-11, 26 (1951).

Study Fly Control

Chemical control of flies and brown dog ticks were subjects of investigations conducted at the Wisconsin Agricultural Experiment Station last year, on which brief progress reports were included in the station's annual review of its activities.

Brown dog tick, it was determined, can be controlled by two per cent chlordane or one per cent gamma isomer benzene hexachloride dusts. These, the report states, are as effective as rotenone or DDT dusts, dips, or sprays, now commonly used. In tests, chlordane and BHC proved more effective than five per cent DDT or lime-activated sabadilla. Bedding and all surfaces of pens were dusted and dogs were also dusted lightly while moving around in the pens. Some dogs also received individual treatments of ¼ ounce of dust per animal and were housed in infested pens. No ticks were found after six months in the treated pens and there was no evidence that residues were harmful to the dogs.

In another project to find out which of the residual insect sprays are attractive to flies, it was determined that three compounds, dieldrin, methoxychlor and DDT, are generally attractive, while chlordane, benzene hexachloride, toxaphene and aldrin, repelled flies.

Kerosene, which is commonly used as a carrier for insecticides, was found to be highly repellent to flies. Under field conditions the investigators said, an insecticide carried in a 2½ per cent water solution controlled flies better than the same insecticide in a five per cent kerosene solution. Ammonia, in very small concentration (not specified in the report) was also found attractive to flies. However, the tests showed that manure contains such large amounts of ammonia that it repels flies until certain decompositions take place.

The Wisconsin investigators also report that one of the new antibiotics, Antimycin A, "shows some promise for future use as an insecticide." When fed to roaches no poisonous effects were noted. But when it was injected into the body cavity of the roach in specified doses, it was found to be very poisonous. Usually the treated roaches died within 24 hours after treatment. Nothing is said, however, in the report about how the professional pest control operator can make practical application of this finding.

In continuation of studies on use of methoxychlor for fly control under normal dairy barn conditions, the Wisconsin workers report that a surface exposed to sunlight needs monthly applications of methoxychlor, because sunlight reduces the residual effect of the poison. However, under normal barn conditions, they add, methoxychlor residues on interior walls are effective throughout the fly season.

Bulb for Odor Control

The lamp division of Westinghouse Electric Corp., Bloomfield, N. J., recently announced the development of a light bulb said to destroy odors. The bulb generates ultraviolet rays through a special glass, and freshens air by molecular action, according to the maker. The bulb, designated "Odorout," retails for $1.30. It operates on low voltage, and requires a special fixture. With fixtures, retail prices range from around $7 to $15.

New Rex Counter Display

A new, deluxe counter display box holding six new six-ounce Rex aerosol deodorizers was announced recently by H. W. Moburg, president of Rex Research Corp., Toledo. Two each of these three fragrances are packaged in a display box: pine, cologne and meadowsweet. The aerosol deodorizers retail for 98 cents each. The choice of the three odors and the make-up of the new package is designed to stimulate units sale with one each of the different odors for the bathroom, bedroom and kitchen.

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News

Diversey Advances Taylor

Fletcher B. Taylor, formerly assistant purchasing direction of Diversey Corp., Chicago, was recently

FLETCHER B. TAYLOR

named purchasing agent. The company manufactures and sells cleansers, disinfectants and insecticides for food plants, industrial and institutional sanitation. It also produces cleansers used in preparing metal surfaces for finishing operations.

Miller Heads Prentiss

J. Miller has been elected president and treasurer of the Prentiss Drug & Chemical Co., New York, succeeding the late Harold King as head of the company. He was formerly secretary and treasurer, and has been associated with the firm since 1919 when it was known as W. Benkert & Co. and later R. J. Prentiss & Co. Friar M. Thompson, Jr. has been named vice-president. Mr. Thompson who was formerly with Hercules Powder Co., Wilmington, joined Prentiss six years ago. A. W. Bevernick continues as vice-president and mid-west manager, and Charles Hermann as vice-president. H. Franklin Seeland has been named secretary.

Coincident with the announcement of the new officers of the company, Mr. Miller announced that Dr. Clarence S. Harris formerly with the Shell Oil Co., New York, had become associated with Prentiss as a technical sales representative. He also stated that the new board of directors will be comprised of Messrs. Hermann, Thompson and Miller.

Dr. H. D. Dakin Dies

Dr. Henry D. Dakin, 72, a research chemist who, with the late Dr. Alexis Carrel of France, developed a hypochlorite antiseptic known as "Dakin's solution", which was credited with saving many lives during World War I, died Feb. 10, at his home in Scarborough-on-Hudson, N. Y., He was associated with Herter Laboratory New York, from 1905 to 1920, serving for many years as director. He was also, for a time, a director of Merck & Co., Rahway, N. J., and scientific adviser to the Merck Institute of Therapeutic Research. He retired a year ago.

Insect Repellent Award

An award of $48,500 was made by a Dallas, Tex. jury to Birch Products Corp. and Louisiana Chemical Syndicate, New Orleans, which had sought $100,000 for damage to 25,000,000 bottles of insect repellent burned in a storehouse in Fort Worth, Tex., in 1950. In answering insurance company attorneys' requests that the damages be cut on what they termed "a bunch of worthless junk", the legal counsel for the chemical company pointed out that although the company had purchased the materials for a tenth of a cent a bottle from the War Assets Administration, the repellent sold at retail for as high as 49 cents a bottle.

Hyman Advances McCauley

W. E. McCauley, for the past five years assistant sales manager and leader of entomological activities for Julius Hyman & Co., Denver, was appointed recently as manager of agricultural product development. In his new position, Mr. McCauley is coordinating and directing all of the company's activities and programs dealing with the introduction, development and promotion of its agricultural chemicals, chief of which are the new insecticides, aldrin and dieldrin.

A graduate in entomology of the University of Illinois, Mr. McCauley last fall gave a paper at the International Congress in Amsterdam, Holland, entitled, "Use of Aldrin and

W. E. McCAULEY

Dieldrin in Soil Widens Scope of Pest Control".

Dr. DuPuis Leaves Johnson

Dr. Robert Newell DuPuis, research and development manager of S. C. Johnson & Son, Inc., Racine, Wis., resigned recently to become director of research of Philip Morris & Co., New York. No successor has been named as yet by Johnson.

Fuld Price Reductions

Price reductions on a number of the items of its line of sanitary chemicals and dispensing and application equipment were announced recently by Fuld Brothers, Inc., Baltimore. Catalog sheets showing new prices have been mailed out. Among the products on which lower prices now apply include drip machines, deodorant block holders, lambs' wool applicators, cleaning and degreasing compounds, deodorant blocks, liquid and aerosol deodorants, powdered dishwashing compounds, disinfectants, floor dressings and cleaners for wood floors, insecticides and fly sprays, pre-surgical and antiseptic soaps, powder hand cleaners, self-polishing liquid wax, etc.

Joins Dawson Associates

Archie E. Armstrong, formerly of the sanitation department of the American Institute of Baking, recently

ARCHIE E. ARMSTRONG

joined J. Carl Dawson and Associates of St. Louis, as a preventive sanitation consultant. He is a graduate of Kansas State College, where he completed most of his work for a master's degree in entomology.

ACS Meeting Dates

Papers dealing with insecticides will be among the highlights of the 121st national meeting of the American Chemical Society being held in two sections, the first Mar. 23—27 in Buffalo, N. Y., the second in Milwaukee, Mar. 30-Apr. 3. In addition to a group of papers dealing with various aspects of insecticides, a feature of the Milwaukee meeting will be tours through the plant and research laboratories of S. C. Johnson & Son, Inc., Wis.

Of interest at the Buffalo meeting are papers on two new isomers of benzene hexachloride and one on the comparative growth response of chicks to detergents, germicides and penicillin. The latter to be given on Mar. 25 in the Hotel Buffalo. On Mar. 24, at a morning session in the Hotel Statler, the paper on the new BHC isomers will be read. The paper, "Isothermal Dehydration of Hydrous Soap Systems", will be given at the afternoon session, Mar. 26 in the Hotel Lafayette.

Highlighting the Milwaukee meeting will be two sessions of the Pesticides Subdivision of the Division of Agricultural Food Chemistry. One portion of this session will deal with the subject of pesticide residues. A symposium in two parts will take up: I. The Residue Problem, II. Necessity for Residues. Avery S. Hoyt of the U.S. Department of Agriculture will preside at the first session, and Charles E. Palm of the entomology Department of Cornell University will preside at the second half of the symposium. This will be an all-day meeting in the Auditorium, April 2. The afternoon of the previous day will be given over to a session on agricultural insecticides, presided over by L. G. Cox.

Kearny Names Haldane

The appointment of Messrs. Ian M. Haldane & Co., P. O. Box 54, London, Ont., Canada, as representatives of Kearny Manufacturing Co., Kearny, N. J., for the Dominion of Canada, was announced recently by E. W. Ercklentz, vice-president in charge of sales for Kearny.

Termites TV Program Topic

Leo R. Gardner, manager of research and development of California Spray-Chemical Corp., Richmond, Calif., was the guest scientist on a recent San Francisco TV program, "Science in Action". He discussed the economic damage caused by termites, which he said was greater than that of any other pest. Both chemical and structural control methods were outlined by Mr. Gardner. Also participating in the program were Dr. Edward S. Ross of the California Academy of Sciences and Tom Groody, the program's narrator.

Innis Advances Barton

Innis, Speiden & Co., New York, recently announced the appointment of Richard Barton to the

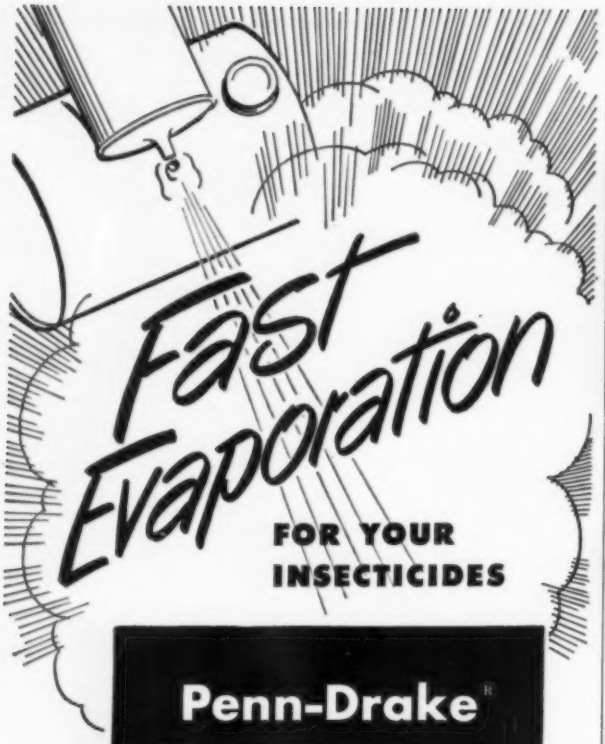
ROBERT BARTON

position of technical advisor and sales manager for their soil fumigants and agricultural chemical specialties. Mr. Barton has previously represented Innis, Speiden in a sales capacity in Philadelphia, Maryland, Delaware and Virginia. Earlier he was associated with the S. S. Pennock Co. and as sales manager for T. H. Brodhead Co., Ltd. He has a long agricultural background, having worked under the A.A.A., the Soil Conservation Service, the R.E.A., and for many years as a farm manager.

A. I. Risser Dies

A. I. Risser, founder of Risser Manufacturing Co. at the turn of the century and since 1912 head of U. S. Bottlers Machinery Co., died Feb. 27.

Leo Gardner (left) of Calspray on TV program.



Penn-Drake® SUPER-SOL

Wherever fast drying and rapid evaporation are essential, you will profit in quality by basing your insecticides on Penn-Drake Super-Sol. This odorless, super-refined hydrocarbon solvent is the ideal base oil carrier for mothicides and in the preparation of DDT residual sprays. It also is highly recommended for use in odorless paints, home dry cleaners, metal parts cleaners and in other products requiring a high flash point.

SPECIFICATIONS

A.P.I. Gravity	53/55
Specific Gravity at 60° F	0.755/0.765
Saybolt Viscosity at 100° F	29.5/30.5 sec.
Flash Point C.O.C.	130/135
Fire Point C.O.C.	140/145
Initial Boiling Point	330/340
Distillation End Point	430/440
Unsulfonatable Residue	98%
Color	Water white
Odor	Practically none

Write for samples and further details

penn drake products

PENNSYLVANIA REFINING COMPANY

GENERAL OFFICES: BUTLER, PENNA.

Refinery at KARNS CITY, PENNSYLVANIA

Branches: Cleveland, O., Edgewater, N.J. *Representatives in Principal Cities*

Also Makers of Rubber Solvent, VM&P Solvent, Cleaning Solvent

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Thousands of Maintenance Managers use AMERICAN STANDARD man-sized wet-mops, sweep mops and applicators exclusively. The nation's most successful distributors regularly supply those thousands of AMERICAN STANDARD enthusiasts.

for both ROUGH and smooth floors

For years the VICTORY Wet Mop has been our biggest seller. Thousands of maintenance men use VICTORY wet mops exclusively! Heavy-duty, quality yarn . . Your best bet, if you want a mop of extraordinary durability, performance and economy.

"BIG X" SWEEP MOP

This sweep mop is our leader. Snatches up dust on contact. It's nationally famous. A durable giant—available in widths up to 5 feet! Can be removed from the block for washing Once you try BIG X, you'll use no other.

HOLZ-EM APPLICATOR

You'll enjoy the fast, thorough performance of this luxurious, high-speed applicator. Reduces cost of applying wax, seals, varnish, etc. More professional floor finishers use HOLZ-EM than any other applicator

Jobbers

Complete catalog of our nationally-advertised mops, applicators, dusters, mitts, and custom-made items, on request.

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AMERICAN STANDARD MFG. COMPANY

Incorporated 1908

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Maintenance Firm Moves

Complete Maintenance and Supply Co., Dallas, recently moved from 1601 Cedar Springs St. to new quarters at 567 West Commerce St.

Common Insecticide Names

The Bureau of Entomology and Plant Quarantine of the U. S. Department of Agriculture recently issued a list of approved names and symbols compiled by the Committee on Insecticide Terminology of the American Association of Economic Entomologists for use in the *Journal of Economic Entomology*. Some of these are approved common names, others are interim designations. They include aldrin, allethrin, BHC, chlordane, DDT, dieldrin, lindane and toxaphene.

Michigan Pesticide Bill

Michigan Senate Bill 264, which would amend section 4 of the Michigan Insecticide, Fungicide and Rodenticide Act of 1949, was introduced recently. It calls for a $10 registration fee for each and every brand or separate economic poison sold. For every registration in excess of ten in any year by the same person the registration fee would be $2. The registration fee for individual products in the 1949 act is $5.

New C.S.M.A. Members

Chemical Specialties Manufacturers Association recently announced the following new member firms and their representatives: Bellaire Products, Inc., Bellaire, Texas, J. S. Adams, Jr., general manager; Kolker Chemical Works, Inc., subsidiary of Diamond Alkali Co., Newark, N. J., J. G. Brunton vice-president; Mill Creek Products Co. New York, Leonard L. Emmer, general manager; Milner Products Co., Jackson, Miss., Howard S. Cohoon, executive vice-president; John Sexton & Co., Chicago, Sherman J. Sexton, president. New associate members are: Bareco Oil Co., Tulsa, B. H. Clary, vice-president; Federal Tool Corp., Chicago, R. A. Winter, sales manager; Hart Products Corp., New York, Ralph Hart, president; W. C. Hardesty Co., New York, Dr. E. H. Bluman, vice president; Pressure Pack, Inc., Detroit, Robert J. Gaskill, president.

Ritchie to Riches-Nelson

Richard J. Ritchie, formerly vice-president of Pepsi-Cola Co., New

RICHARD J. RITCHIE

York, in charge of chemical laboratories and production of syrups and concentrates, recently joined Riches-Nelson, Inc., New York. Earlier Mr. Richie had been chief chemist of Loft, Inc., New York.

Bohart Argueso Vice-Pres.

The election of Andrew J. Bohart as vice-president of M. Argueso & Co., New York wax importing firm, was announced Feb. 29 by L. M. Argueso, Jr., treasurer of the company.

Witco Issues Bulletin

Witco Chemical Co., New York, recently issued a 12-page Technical Service Report on Mildewproofing Agents. It is concerned with eight percent copper napthenate and other chemicals called for in government specifications.

The report describes briefly methods used for mildewproofing and some of the products used for the purpose. It includes abstracts of many of the pertinent government specifications.

Appended is an index of the specifications abstracted so that any particular specification can be easily located. Copies of the report may be obtained by writing to Witco for report P-17.

Amer. Home Earnings

American Home Products Corp., New York, recently reported a net income of $26,063,781, before taxes, and $11,565,373, after taxes, or $93.01 a share and $3,842,522 shares. In 1950, the net before taxes was $23,317,758, and after taxes $11,844,030, or $3.08 a share on $3,850,238 shares then outstanding.

Newman in Wax Post

John E. Newman has just been appointed manager of the wax department of American Mineral Spirits Co., New York.

Monsanto Moves Labs

Transfer of a section of the inorganic research activities of Monsanto Chemical Company's phosphate division research department from Anniston, Ala., to Dayton, O., was recently announced by Russell L. Jenkins, research director. Van Wazer, assistant research director is in charge of the section.

New Toxicology Lab

E. I. du Pont de Nemours & Co., Wilmington, Del., recently announced plans for construction of a new $2,000,000 Haskell Laboratory of Industrial Toxicology near Newark, Del. The company's industrial toxicology laboratory has been located at the du Pont experimental station in Wilmington since 1935. The Haskell Laboratory tests the company's products and manufacturing processes to eliminate potential hazards to employees and customers.

The new laboratory building will be a single story brick structure, and will provide 33,000 square feet of space. The entire staff of the Haskell Laboratory will move to the new headquarters upon their completion.

Seeks Oldest Floor Machine

Hild Floor Machine Co., Chicago, is trying to locate the oldest floor scrubbing and polishing machine still in use, regardless of make. Whoever qualifies for entry will receive $500 for it, this offer being made as a feature of the Chicago firm's 25th anniversary observance.

Pesticide Export Quotas

The Office of International Trade of the Department of Commerce recently announced first-quarter export quotas for two types of insecticides. For copper sulfate the quota is 25,000,000 pounds. Conditioned sulfur and sulfur formulations have an export quota of 9,160,000 pounds.

The quota covering sulfur formulations includes only those containing 20 per cent or more sulfur. It does not include BHC (benzene hexachloride), which is licensed on an "open-end" basis. Under "open-end" licensing, exports are not placed under quantitative restrictions, but are licensed so as to protect national security and domestic supplies.

SAACI Hears Klipstein

Kenneth H. Klipstein, assistant administrator, Chemical, Rubber and Forest Products Bureau, National Production Authority, and on leave from Calco Chemical Co., division of American Cyanamid Co., Bound Brook, N. J., will be the guest speaker of the member-guest luncheon of the Salesmen's Association of The American Chemical Industry to be held March 19, in the main ballroom of the Roosevelt Hotel, New York.

Sagarin Forms Firm

Formation of the Sagarin Institute for Olfactory Research, Inc., at 53 West 36th Street, New York, was announced recently by Edward Sagarin, its director. Mr. Sagarin is the former advertising manager of Givaudan-Delawanna, Inc., New York. The new organization is a consulting service, devoted to all problems relating to odor and taste judgments. Among its consultants are Drs. Dean Foster, Joseph Hersh and Bernice Wenzel. The organization has just announced a booklet entitled "You, Too Can Take the Gamble Out of Odor."

Problems with which Sifor will concern itself include the efficiency of deodorant soaps and cosmetics, the degree of similarity of odor and taste duplications, the effect of dentifrice ingredients on mouth odors, the potential consumer acceptance of an odorous products, and the effect of odorous ingredients on taste reaction.

Alter "Cyanogas" Claims

American Cyanamid Co., New York, recently stipulated with the Federal Trade Commission that it will stop representing that its product, "Cyanogas", is 100 per cent effective as an insecticide and rodenticide. The company also agreed to discontinue claims that the pesticide completely controls pine mice or other rodents or insects, or that it will kill all rats or mice in borrows or other harborages or rid premises of them, or that it assures a complete kill. The stipulation was approved by the Commission in accordance with its policy of encouraging law observance through cooperation in certain types of cases where there has been no intent to defraud or mislead.

New Metal Mop Handle

The availability in several styles and sizes of new metal handle mop sticks was announced recently by R. L. Cooley, vice-president of White Mop Wringer Co., Fultonville, N. Y. These new metal handle mop sticks feature lightness, long life and absence of splinters. The tubular end has a smooth, satin lacquer finish and the butt end has a "palm conforming" knob which is designed to avoid bruising of the user's hand. Catalogue material on the new handles is available by writing White Mop Wringer Co., P.O. Box 1, Fultonville, N. Y.

CSMA Meeting Plans

A general program plan and basic schedules for its 38th mid-year meeting to be held at the Copley-Plaza Hotel, Boston, on June 8, 9, and 10, were announced recently by the Chemical Specialties Manufacturers Association. The following is an outline of the meetings program: Sunday, June 8, board of governors, administrative committees, general committees, divisions committees; Monday, June 9, morning meetings of the five divisions composing the association, noon, group luncheon, afternoon, general meeting, committee meetings, evening, company open house; Tuesday, June 10, morning, general meeting, noon, group luncheon, afternoon, division meetings, evening, cocktail party, banquet.

T. Carter Parkinson of McCormick & Co., Baltimore, is general chairman of the program committee.

The association's board of governors meets at the Drake Hotel, Chicago, March 21. The C.S.M.A. executive committee and administrative committees of the five divisions of the association meet at the same place March 20.

Island Equipment Booklet

Island Equipment Corp., Long Island City, N. Y., recently issued a brochure to commemorate its tenth anniversary. It catalogues in text and pictures the conveyor equipment made by Island, and gives a pictorial description of the facilities and personnel of the company. Island will supply the booklet upon request.

Photo below was taken during eastern division sales meeting of Innis, Speiden & Co., New York, where meeting was held recently. All department managers and all sales personnel from New York, Boston, Philadelphia and Gloversville attended. Donald S. Cushman, vice-president, reviewed 1951 operations and discussed plans for 1952. New products were explained by department managers. A similar meeting was held in Chicago last month for mid-western sales division.

Stolk in Cancer Crusade

Appointment of William C. Stolk, president of the American Can Co., New York, as chairman of the Steel, Iron and Tin Division for the 1952 Cancer Crusade has been announced recently by John Reed Kilpatrick, president of the New York City Cancer Committee.

Form Sanitation Institute

The founding by Dr. Edward L. Holmes and Louis G. and Thomas L. Huge of American Sanitation Institute, to be operated as a division of Huge Co., St. Louis, was announced recently. The purpose of the new organization, which makes its offices at Huge headquarters, 884 Hodiamont Ave., St. Louis 12, Mo., is to offer to all food processing industries and allied fields professional scientific service in food plant sanitation.

Dr. Holmes, who is directing the activities of the Institute as executive director, formerly was director of sanitation at the American Institute of Baking in Chicago for the past six years. Previously, for 11 years, he was with the Federal Food and Drug Administration. He received his Ph.D. in chemistry from McGill University. Assisting him are Walter A. Quebecdeaux, Jr., chemist and chemical engineer, and a 1935 graduate of Southwestern University, where he received dual degrees of B.S. in chemistry and A.B. in mathematics. He also earned a B.S. in chemical engineering from the University of Texas in 1940, together with a Ph.D. in chemistry. Since receiving his doctorate, he has been connected with the U. S. Public Health Service and the Industrial Hygiene Section of the Texas State Department of Health.

Other staff members include: Edwin A. Brunken, an entomologist and graduate of the University of Nebraska; Lloyd R. Spivak, a bacteriologist and University of Illinois graduate, formerly with Prairie Farms Dairies, Chicago, and for five years a Food and Drug Inspector; Harry McCandless, a 1951 graduate of Kansas State College, and an entomologist who has been with the inspection service of Huge Co. as a sanitarian; Kenneth E. Roberts, formerly supervisory food inspector with the District of Columbia Department of Health and Paul V. Thomure, sanitarian with five years experience in inspection work, two years of which were with Huge.

New Pick-Up Machine

A new "Water Pick-Up Machine", designed to pick up or wet-vacuum large areas of water covered floors efficiently, was announced recently by American Floor Surfacing Machine Co., Toledo, O. Its use in combination with an electric scrubbing machine is suggested for maintaining large floors.

The machine has a one H.P. motor, large capacity tank and wide, heavy duty squeegee mounted as an integral unit on a three wheeled dolly. Suds and dirty water are picked up by heavy duty vacuum, leaving a clean, dry path 29 inches wide. Features of the machine include: cast aluminum pick-up unit with rubber squeegee blades; bumper guard wheels to prevent machine from marring walls, baseboards or furniture; special motor cover to deaden sound; 15 gallon, capacity tank with rust-proof porcelain interior; positive copper float to cut off vacuum at safe water level; squeegee lift control on handle to raise water pick-up from floor when not in use; trailing wire arm to keep electric wire out of way; adjustable height; arm swivels for easy action.

Conco Names Barnes

The appointment of William C. Barnes as a sales engineer for Conco Chemical Co., Dallas, Tex., was announced recently by Lacy E. Crain, Conco's president.

Lindane Information Chart

A chart on applications of lindane for various household insects, designed for use by pest control operators, was issued recently by California Spray-Chemical Corp., Richmond, Calif. The chart, prepared by the company's research department, carries the latest recommendations, including formulations, rate of application and additional remarks for use against the following pests: ants, bedbugs, chiggers, clothes moths, flies, gnats, mosquitoes, lice, powder post beetles, roaches, silverfish, spiders, and termites. It also covers the use of lindane in vaporizing equipment.

Warfarin Spec. Drafted

A new proposed federal specification for 0.5 percent warfarin rodenticide, prepared by the Technical Committee on Insecticides, Fungicides and Rodenticides of the Federal Specifications Board, was announced recently. It includes the following requirements:

Materials—the rodenticide shall contain only the materials specified herein; particle size—the finished rodenticide shall be a fine, free flowing powder devoid of lumps. It shall be of such fineness that not less than 95 percent shall pass through a 100-mesh U. S. Standard screen (dry test) when tested as specified; composition—the composition of the finished rodenticide shall conform to the requirements shown in table 1 (table 1: warfarin 0.50-0.55 percent, pigment 0.90-1.10 percent, cornstarch—remainder); warfarin—the active ingredient of rodenticide warfarin 0.5 percent shall be technical grade 3-(alpha-acetonylbenzoyl)-4-hydroxy coumarin, hereinafter referred to as warfarin, suitable for its end use, and free from objectionable odor and taste; assay—the rodenticide shall contain not less than 0.50 percent nor more than 0.55 percent of warfarin when determined as described; pigment—the pigment shall be of a Nile green color, adequate for its proposed end use, and approved by the U. S. Department of the Interior, Fish and Wildlife Service; cornstarch—the cornstarch shall conform to the requirements of the *Pharmacopoeia* of the United States; moisture—the finished rodenticide powder shall not lose more than 11.0 percent of its weight when tested as described.

Crown Aerosol Folder

American Can Co., New York, announced recently that it has collected nearly 4,00,000 pounds of iron and steel scrap salvaged from worn-out and obsolete equipment during six months of a special scrap drive. The drive, which collected salvage scrap in the firm's 50-odd can factories and can manufacturing equipment shops, does not include scrap metal normally accumulated from can-making plants and disposed of from month to month.

Monsanto N. Y. Changes

A reorganization of the New York sales district of the organic chemicals division of Monsanto Chemical Co., St. Louis was announced recently by Robinson Ord, general manager of sales. It was brought about by the retirement, March 1, of Harry B. Miles, Monsanto sales representative in the district for nearly 29 years.

James D. Wright, resident sales representative at Buffalo, N. Y., has been transferred to Pittsburgh, Pa. He had been in Buffalo since 1949, and with Monsanto since 1947.

W. Kenneth Conwell and George D. Stewart, both of the New York office, are making their headquarters in Philadelphia. Mr. Conwell, assigned to the New York district since 1949, joined Monsanto in 1940. Stewart joined Monsanto in 1947 and was transferred to New York for the second time in 1951.

Roy P. Sullivan of the division's sales office at St. Louis has been appointed resident salesman at Syracuse, N. Y., replacing James A. Singmaster, recently named assistant general branch manager at the New York office. Mr. Sullivan has been with Monsanto since 1948.

New Orbis Executives

The appointment of Charles S. Fitzsimmons as president and treasurer of Orbis Products Corp., New York, was announced recently. He has been a member of the firm since its inception 34 years ago.

C. T. Palagonia, who has rejoined the firm as sales manager, started his business career in the chemical field with Orbis in 1946 after attending Fordham University and serving four years in the United States Armed Forces.

Dolge Names Haher

The appointment of Kenneth Haher as manager of the soap division of C. B. Dolge Co., Westport, Conn., has just been announced.

Dow Microbiological Lab

Establishment of a microbiological laboratory as a section of the biochemical research department of Dow Chemical Co., Midland, Mich., was announced recently by Dr. D. D. Irish, director. Dr. Paul A. Wolf, a member of the biochemical research department since 1942, has been placed in charge of the new laboratory. Efforts of this section will be directed toward the developments of new germicides and fungicides for control of bacteria, molds and yeasts that cause deterioration to industrial and agricultural products. In addition to the development of new products for these fields, this laboratory will conduct a continuous study of methods by which the "Dowicides" and other Dow preservatives can be used to better advantage.

Dr. Charles G. Humiston, Dr. Robert L. Johnson and Willard M. Westveer are to be associated with Dr. Wolf in the microbiology laboratory.

Oil Chemists Meeting

The American Oil Chemists' Society will hold its annual meeting April 28 through 30, at the Shamrock Hotel, Houston, Tex. A. E. Bailey, Humko Co., Tenn., president of the society, announces that the three days will be devoted to technical papers, committee reports, officers' reports, and social events. General convention chairman will be William Argue, Anderson, Clayton Co., Houston, and John L. Schnake, also of Anderson, Clayton, will be in charge of exhibits.

The society's 26th annual fall meeting will be held October 20 through 22, in Cincinnati, O.

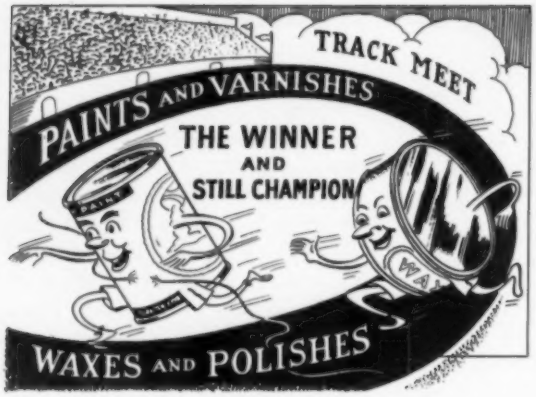
FDA Proposes Amendment

Charles W. Crawford, Food and Drug Commissioner, recently urged Congress to enact a law which would require the pre-testing of new cosmetics and new ingredients in cosmetics before they reach the market. The commissioner made these suggestions when testifying before a special House committee investigating chemicals in foods and cosmetics.

Shortly before Mr. Crawford testified, the Food and Drug Administration proposed an amendment to its regulations under section 601 of the Federal Food, Drug and Cosmetic Act. This amendment is a new definition of the words "coal-tar hair dye", and would remove the exemption granted to coal-tar hair dyes by the act from color shampoos and similar articles. Under the law coal-tar hair dyes are exempted from the adulteration provisions of the act if their labels contain the appropriate warning statement. This proposed regulation would make the control of color shampoos more stringent than that of an out and out hair dye.

Moth Products Committee

A special committee to consider the uses and labelling of naphthalene and paradichlorobenzene was appointed recently by C. L. Weirich of C. B. Dolge Co., Westport, Conn., president of Chemical Specialties Manufacturers Association. The committee which held its first meeting in New York March 5 is composed of: A. Wiener, chairman, Standard Chlorine Chemical Co., South Kearny, N. J.; E. W. Vander Wolk, Koppers Co., New York; R. C. Quortrup, Allied Chemical & Dye Corp., Barrett Division, New York; James E. Ferris, Niagara Alkali Co., New York; D. G. Miller, Reilly Tar & Chemical Co., Newark, N. J.; J. H. Bink, Reefer-Galler Co., New York; M. A. Boardman, The Boardman Co., Philadelphia; M. C. Lattremore, Judson Dunaway Corp., Dover, N. H.; A. L. Saeks, The Puro Co., St. Louis, Mo.; T. M. King, Dow Chemical Co., Midland, Mich.; James Singmaster, Monsanto Chemical Co., New York.



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No. 11 TRANSPARENT PLASTIC DISPENSER *with push-up type valve.*

Applications: Specially designed for service station, garage, home use.

Features: Durable, transparent plastic container. Inexpensive . . . low in maintenance cost. Close-fitting top swings open for convenient filling. Positive metal agitator prevents packing—meets most soap flow characteristics. Push-up plunger permits quick, one-hand operation. Steel sleeve surrounding dispensing mechanism gives added strength . . . provides secure support for steel bracket for wall mounting.

Materials: Exterior metal parts have baked-enamel finish to harmonize with plastic color.

Specifications: Size—8" high x 4" diameter. Weight—6 oz. Capacity —approximately 1 pint (liquid measure).

Packing: Standard packing—1 unit to individual re-shipper carton (weight—12 oz. per carton).

No. 10 ALL-PLASTIC DISPENSER *with push-in type valve.*

Applications: Industrial plants, public buildings, office buildings, schools, theaters, gasoline stations—also a practical convenience for the home laundry or kitchen.

Features: Transparent plastic container. Wide-opening top for easy filling (Lock-top—Model 10-L—optional). Positive agitator prevents packing, insures smooth, even flow. Non-clog thrust-in discharge valve easy to clean. Heavy brackets for direct mounting to wall or pipe.

Specifications: Size—8" high x 3¼" x 3½". Weight—14 oz. Capacity—1 quart (liquid measure).

Packing: Standard packing—1 unit to individual re-shipper carton (weight—1 lb. 5 oz.); repacked 1 dozen to shipping case.

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Alters Rodenticide Claims

Willis E. Simpson of Jessup, Md., trading as One-Spot Co, recently entered into a stipulation with the Federal Trade Commission whereby he agreed to stop claiming that "One-Spot Rat and Mouse Killer" is safe or non-poisonous. He also agreed to halt claims that the product will kill rats and mice within five days, without clearly revealing that it takes longer to kill them in some instances.

Drake in OPS Post

William P. Drake, vice-president in charge of sales of Pennsylvania Salt Manufacturing Co., Philadelphia, was recently named director of the rubber, chemical and drugs division of the Office of Price Stabilization. He succeeds Thomas H. McCormack, who is returning to his post as director of sales of the Grasselli Chemicals Division of E. I. du Pont de Nemours & Co., Wilmington, Del. Mr. Drake serves as director of the OPS division until next July 1.

New Chlordane Folder

Issuance of a new folder, "Chlordane Controls Turf Insects", which describes the appearance and habits of turf insects, and also gives the method of application for their effective control with chlordane, was announced recently by Velsicol Corp., Chicago. Turf and soil insects covered in the folder include white grubs, Japanese beetle larvae, ants, wireworms and chiggers. The folder also contains a rate of application table which gives the amount of formulation to use for a desired rate of application of actual chlordane per acre. Copies of the folder are available free by writing the company at 330 East Grand Avenue.

Dr. Barail a Consultant

Dr. Louis C. Barail recently announced the opening of offices as a consultant biochemist and toxicologist at 222 West 83rd Street, New York, with laboratory facilities in Hackensack, N. J. Dr. Barail has been associated with U. S. Testing Co. for the past eleven years. The company will specialize in toxicology studies and research in the fields of disinfectants, pesticides, food products, packaging materials, etc.

T. F. Brennan has been named manager of American Can Company's new Packaging Development Division of the company's general sales department in New York, it was announced March 6. He serves in a liaison capacity between sales, manufacturing and research in the development of new metal and fibre containers and new products for existing containers. Mr. Brennan was formerly manager of Canco's non-food container sales division.

Cotton Insect Control Film

Release of a new movie, "Cotton Insects and their Control", was announced recently by Hercules Powder Co., Wilmington, Del. The film, of which 50 prints have been made available for distribution through branch offices of the company or extension entomologists in cotton producing states, emphasizes the importance of insect control. A 16-mm. film in sound and full color, it runs 40 minutes.

Cut DDT Export Aid

Priority assistance previously available to exporters in obtaining supplies of DDT for export has been discontinued it was announced recently by the Office of International Trade of the U. S. Department of Commerce.

Chlorophyll in Para Blocks

A new line of para deodorant blocks containing chlorophyll will be introduced by I. Schneid, Inc. of Atlanta, Ga., at the 29th annual convention and trade show of the National Sanitary Supply Association, being held at the Conrad Hilton Hotel, Chicago, Mar. 23—26. This is believed to be the first application of chlorophyll to the deodorant block field. The use of chlorophyll has been reported to be effective in controlling or eliminating odors in other types of applications. It is thought that the use of the material as an ingredient in para deodorant blocks might be useful in controlling odors at their source. Large scale tests under actual use conditions have been devised, and additional tests will be made to determine the length of effectiveness of chlorophyll in the para block, according to a company announcement.

New WARF Publication

A new publication designed to be a news digest for country agents, vocational agricultural instructors and other agricultural leaders was announced recently by Wisconsin Alumni Research Foundation, Madison, Wis. It is known as the "Wisconsin Alumni Research Foundation News & Reviews".

Ephasis is to be on delevopments in the agricultural field sponsored by the foundation, and specifically during the coming months on the development of warfarin rodenticides. At present it is contemplated to issue the digest every two months. Announcement of the publication was made by Ward Ross, managing director of the Foundation.

Photo taken during recent Eastern P.C.O. Conference at Amherst, Mass.

Cleaners for U.N.

(*From Page* 43

with spreading and pick-up operations following.

On aluminum, a recently introduced aluminum polish and cleaner is used, undiluted and in two grades. For light cleaning, it is applied with a cloth, and rinsed with clear water. There is no polishing or buffing action, and the material seems especially to suit satin finish metals. For surfaces more thoroughly soiled, a heavy duty version of the same cleaner is used. Aluminum surfaces are cleaned nightly in the lobby by contractor's personnel, and all day long on rails, upper floor window edgings, etc. by both U. N. porters and the contractor's workers.

Asphalt Tile Floors

ASPHALT tile floors are not buffed and waxed, as is the case in many commercial buildings, but one of the larger manufacturers supplies a floor compound which is applied with a mop and leaves a soft lustre. The safety factor is vital here, because of the nature of the traffic in the building. It does yield a slight lustre, however, and requiring no buffing it has been a substantial labor saver. Incidentally, in testing floor polishes, efforts are made to detect any destructive characteristics, as well as being tested for ease of application, odor, and final result. All areas will be treated in the course of one week. Busier places are done nightly.

On marble walls, a straight cleaning powder is used, undiluted, and water washed. For other wall surfaces a liquid detergent is used, diluted three to one from its delivered strength, and then used in solution of 30 ounces to ten gallons of water.

For painted surfaces, and most such in these buildings is paint over metal, a paste cleaner is used, applied undiluted usually with a sponge slightly wet, and rinsed with clear water.

Ceramic tile floors and walls, largely in bathrooms, are done with a powder cleaner, sifted onto the surface in the case of floors, and applied with a cloth to walls. Both are washed with clear water.

A disinfectant is used weekly in all toilet facilities. A special point to mention here is that, while orders are placed in gallons, delivery is required in quart bottles, to offset spillage and possible danger to the cleaning worker in handling the material.

Liquid soap of a very high grade is supplied in all washrooms, with unusually neat dispensers. The soap itself is stored in reservoirs on every third floor; the container and the piping leading to the various rooms will hold 5½ gallons, and is about one week's supply to those three floors. Contractor's porters and U.N. matrons service these facilities all day, not only with the soap, but with the highest grade tissue and paper towels.

Concrete surfaces in the heavy work areas of the building are flushed with TSP in a controlled solution, and shortly automatic heavy sweepers and flushers will be used.

Kitchen areas, which are operated by the Knott Hotel systems, have quarry tile floors and painted walls. The equipment itself with a couple of minor exceptions is stainless steel. The kitchen personnel are responsible for cleaning, and it is of course a continuous operation. Materials used are in some cases the same brands, but in all cases comparable to that used by the U.N. itself.

Windows are washed in a continuous cycle by a special crew of six men. On this schedule each window will be washed at least once a month. Naturally, special attention is given where needed, but the structure of the building and its dirt-free location, make a once a month program quite adequate. Nothing but water is used on windows, as most cleaning compounds would damage the aluminum which borders the windows themselves. This is also true of interior glass.

Venetian blinds, which are used throughout, are another special problem, and are so treated. Here, too, a special crew works in a continuous pattern, so that every blind on every window gets the full treatment once a month. The contractor estimates that a good operator can do sixteen blinds in eight hours, and do a thorough job. A pure soap is used, and a thin wax or oil applied.

Furniture for the largest number of offices is metal. It is cleaned as requested by its user. The nature of much of the paper work at the U.N. is confidential in varying degrees, so that there is no automatic cleaning of desks unless requested, except the nightly dusting operations. Finer woods are treated with a white wax, and lesser qualities with a commercial grade of polish.

The contents of wastebaskets, and other office residue, are placed in large burlap bags, after collection in carts containing the bags as a lining. These bags are marked as to their source, by floor and area, and are kept for forty-eight hours against the loss of something important, personal or otherwise. Waste paper is then collected in a single special room, where all confidential material is shredded, and where the balance is simply bundled. A dealer buys this.

Garbage collection from eating facilities is continuous, and is immediately sent to a refrigeration room, where it is kept until collected. The refrigeration prevents odors, eliminates dangers of drawing rodents, contamination, etc. After it is collected, the cans are subjected to a live steam sterilization before being returned to their stations.

To do all this work and do it well, there are under Van Name and Bolduc, three superintendents employed by the U. N., who check and supervise the work of a full and complete organization brought to the premises by the cleaning contractor. The U. N. also has 21 porters on continuous day duty and 9 matrons, who service the ladies' facilities and the hospital.

During the day time the contractor has a force of 35 men at work and during the night averages 85 men and 62 women. The women of course do the general office cleaning and dust-

ing, waste emptying, etc. Women do no heavy mopping, scouring or lifting, and do not handle strong disinfectants.

Exterminators Meet

The Professional Exterminators Association held a meeting February 11, at the American Museum of Natural History, New York, at which Dr. Shepard Shapiro, of New York University and the Wisconsin Alumni Research Foundation, discussed the discovery of Warfarin and its mode of operation. The meeting was attended by representatives from the New York City Department of Health, U. S. Department of the Interior, and the Food and Drug Administration.

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Graaskamp to Canco Board

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Triangle Package Changes

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Robert Strehlau, formerly with Package Machinery Co., Chicago, succeeds Mr. Muskat as eastern sales manager. Robert L. Muskat has been appointed advertising and sales promotion manager, a newly created position. Robert Schrader continues as assistant sales manager.

Insect Repellents

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PROFESSIONAL *Directory*

For PLANT MODERNIZATION and EXPANSION you can rely on NEWMAN'S

72 *years of experience* in new, used and reconditioned SOAP MACHINERY!

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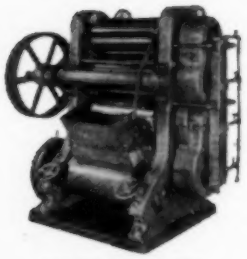

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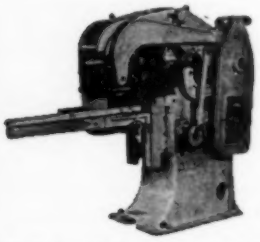
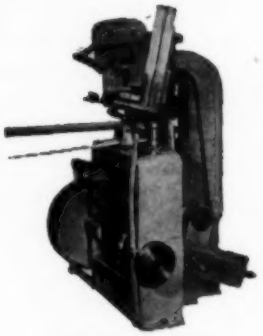


JONES Horizontal Type AUTOMATIC combination laundry and toilet soap presses. Single or Double Kick.

THIS MONTH'S SPECIAL OFFERINGS

Houchin Automatic Power Driven Two Way Soap Cutting Table thoroughly reconditioned.

R. A. Jones Pin Die Automatic Soap Press with feed and take-away conveyors; thoroughly reconditioned, ready for immediate shipment.



JONES Vertical type
AUTOMATIC Toilet Soap Presses.

Additional Precision Rebuilt Machinery with New Equipment Efficiency

- H-A Single Screw Soap Plodders, 4, 6, 8, and 10"
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- Empire State and Crosby Foot Soap Presses
- Toilet Soap Mills — 2, 3, 4, 5 roll
- Blanchard 10A Soap Powder Mill
- Mikro Pulverizer
- Filling and weighing machines for flakes, powder, etc.
- Steel Soap Frames, 1000 to 1200 lb. cap.
- Automatic Soap Wrapping Machines
- Sperry and Shriver Filter Presses, various sizes
- Amalgamators
- Schutz O'Neill Mills
- Day Pony Mixers
- Dopp Steam Jacketed Soap Crutchers
- Powder Mixers, Day, Robinson, Broughton, etc., all sizes
- Soap Dies for Automatic and Foot Presses
- Pumps, various types and sizes
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Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.

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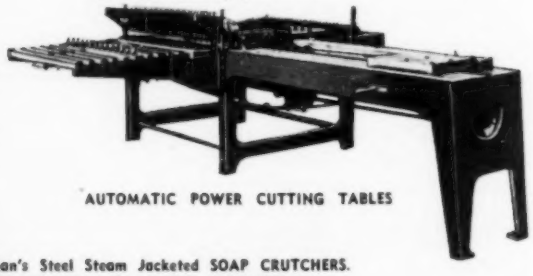


AUTOMATIC POWER CUTTING TABLES

Newman's Steel Steam Jacketed SOAP CRUTCHERS.
BRAND NEW. Sizes 1,000 to 10,000 lbs.

CLASSIFIED

Classified Advertising — All classified advertisements will be charged for at the rate of ten cents per word, $2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, $1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap & Sanitary Chemicals*, 254 West 31st St., New York 1.

Positions Open

Soapmaker: All-around soap maker wanted. Give full details first letter. Factory located Pacific Coast. Address Box 491, c/o *Soap*.

Salesman Wanted for prominent line of liquid soap dispensers for jobbing trade. Give full details in your first letter. Address Box 490, c/o *Soap*.

Chemist: For development work. Must have had experience in the manufacture of wax emulsions, soap, polishes, insecticides and general maintenance. State salary expected, also experience. Address Box 492, c/o *Soap*.

Soapmaker Wanted: U. S. organization with Mexican and South American subsidiaries desires a man thoroughly trained in soap operations who is capable of assuming complete charge of production. Excellent opportunity for qualified individual. Address Box 493, c/o *Soap*.

Insecticide Sales: Wanted by eastern manufacturer of insecticides, basic drugs, chemicals, experienced salesman who knows the trade. Cover eastern seaboard. Travel about 50% time. Excellent opportunity and remuneration. Old, substantial firm. Give full record, experience, etc. in letter. Address Box 494, c/o *Soap*.

Sales Manager: For soap and specialty manufacturing company located Metropolitan New York area. Man 36-40 with good background in selling to processors, beauty trade, janitor supply trade, etc. Opportunity acquire interest if of proved worth. Company well-known, solid financially, long in business. Write with full details and in complete confidence. Address Box 495, c/o *Soap*.

Salesman: Long established, leading manufacturer of heavy-duty floor polishing and waxing machines, sold to business buildings, hospitals, schools, institutions, factories, etc., has opening for aggressive, hard-hitting salesman, not over 40 years of age and with experience in the janitor supply business, owning good car, to handle good territory on exclusive basis; must be in a position to devote full time. Answer in own handwriting, giving past business and personal history. Address Box 497, c/o *Soap*.

Executive Sales Manager: Field selling essential. AAA-1 manufacturer of industrial chemicals has opening for top sales executive. If you have similar business would consider buying you out. Successful applicant must have sales "know-how" in the industrial chemical and cleaning maintenance line. All inquiries confidential. Please give complete background in first letter. Industrial Chemical Division, Dept. S, Box 711, Fort Worth, Texas.

Positions Open

Salesman Wanted: For liquid, paste and base shampoo soaps. Commission or partnership basis. Give full details in your first letter. Address Box 496, c/o *Soap*.

Situations Wanted

Chemist: Background of 15 years in soaps, cleansers, glycerine, shaving creams, oils, foods, and plant lay-out and operation available for new connection. Can direct manufacture and general business. At present employed. Good record, best references. Graduate eastern university. Married. For full details, address Box 498, c/o *Soap*.

Plant Manager: Man with chemical education and ten years experience in soaps, synthetic detergents, oils and fats, can handle full details small plant. Can develop new products based on research experience and direct laboratory. Address Box 499, c/o *Soap*.

Plant Supt.: Chemist for past 15 years directing all manufacture, personnel, etc. for plant making insecticides, soaps, cleansers, cosmetics will make change. Direct compounding, shipping government contracts. Age 40, excellent record, best references. Can take over full management large or small plant. For details, write Box 500, c/o *Soap*.

Chemist-Supt.: Thoroughly familiar with and experienced in research, development, control and production of liquid and paste soaps and detergents. 8 years of practical and theoretical experience with synthetics compatible with soaps, liquid soaps and synthetics, concentrated granulated soaps (spray-dried, drum-dried and dry-mixed), emulsions and emulsifiers, dry and liquid hand dishwash, suds and wash tests and formulas and results of home

Situations Wanted

laundry tests with all leading soaps and detergents. Address Box 501, c/o *Soap*.

Sales Manager: Can direct sales staff for industrial soap company. 15 years experience in selling and managing sales of soaps, cleansers, and allied products to institutional and industrial markets throughout eastern states. Know trade, buyers, products. Good record. Immediately available. For further information, address Box 502, c/o *Soap*.

Miscellaneous

Wanted: A good used Viscolizer or homogenizer. Give size, make, price and condition. Address Box 503, c/o *Soap*.

Wanted: Complete soap or sanitary chemical plants. Also individual items such as crutchers, plodders, mills, mixers, presses, dryers, filling equipment, etc. R. Gelb & Sons, Inc., State Highway No. 29, Union, N. J.

Will purchase Immediately: Pneumatic Packaging Machine, used for chips, powder, cleanser; also dry mixers, chip dryers, crutchers, and automatic soap press. Address Box 504, c/o *Soap*.

Wanted: Cancelled-unshipped-rejected or overstock chemicals, drugs, solvents, pharmaceuticals, oils, pigments, etc. Chemical Service Corp., 92-06 Beaver St., New York 5. Tel.: HAnover 2-6970.

Soap Plant Wanted: We are now manufacturing over $20,000,000 in various lines and wish to expand by acquisition of assets or stock of one or more industrial companies. In our negotiations the seller's problems and wishes will receive full consideration. Present personnel will normally be retained. Address all replies "Confidential." C. J. Gale, Sec., 233 Broadway, N. Y. 7, N. Y. BA 7-1819.

Miscellaneous

Wanted: To expedite production—soap-making equipment including kettles, frames, pulverizers, cooling rolls, chip dryers, plodders, cutting tables, evaporators, packaging units. Will consider a set-up plant now operating or shut down. When offering give full particulars. P. O. Box 1351, Church St. Sta., New York 8, N. Y.

Soap Plant Wanted: Complete toilet, laundry soap manufacturing facilities. Preferable owner available period of time after purchase acquaint purchaser with operations. Address Box 508, c/o *Soap*.

For Sale

For Sale: New 1500# Soap crutcher; cutting table; Jones press; wrapper type S; 3000# crutcher motorized; 3&5 roll mills; 10" plodder; other soap machy. I. E. Newman, 5602 Blackstone Ave., Chicago, Ill.

For Sale: 20 all steel soap frames. ID 54" long, 14" wide, 42" high. OD 59½" long, 18½" wide and 50½" high. Small and large roll for Proctor & Schwartz soap chip dryer, also automatic soap cutting machine. Address Box 505, c/o *Soap*.

For Sale: Shriver 12" filter press mounted on dolly, to first reasonable offer. St. Louis Janitor Supply Co., 2025 Washington Ave., St. Louis, Missouri.

For Sale

For Sale: Small Jones Vertical Auto Soap Press—very reasonable. Located Los Angeles, Calif. Address Box 506, c/o *Soap*.

For Sale: Proctor & Schwartz 6-Fan automatic soap chip conveyor dryer with 48" diam. chilling roll unit. Excellent condition. Address Box 507, c/o *Soap*.

For Sale: Approximately 37,000 small DuPont cellulose sponges, 3½x1½". Ideal applicators for various cleaning specialties. Available below cost. Also will dispose of 2,400 lbs. Davison Chemical Company Blue Silica Gel below market prices. Zeen Chemical Co., 2000 Elm St., Cleveland 13, Ohio.

For Sale: Proctor & Schwartz 6-Fan automatic soap chip dryer, 2-roll chilling unit, large roll 48" dia. Empire State foot presses. Soap frames. Allbright-Nell 4'x9' chilling rolls. Lehmann 4-roll W.C. 12"x36" steel mill. Houchin 8-1/2"x16" 3-roll and 18"x30" 4-roll Granite stone mills. Kettles and tanks, iron, copper, aluminum and stainless dryers vac. & atmos. Jones automatic soap presses. Slabbers and cutting tables, hand & power. Crutchers. Six-knife chipper. Filter presses 12" to 42". Wrapping & sealing machines. Powder, paste & liquid mixers. Rotex sifters. Filling machines, grinders. Hammer mills. Colloid mills. Three-roll steel mills, 8"x22", 9"x32", 12"x30" & 16"x40". Portable elec. agitators pumps, etc. Send for bulletin. We buy your surplus equipment. Stein Equipment Co., 90 West Street, New York 6, N. Y. WOrth 2-5745.

For Sale

Latest American Book on SOAPS & DETERGENTS? See page 182.

For Sale: Horizontal ribbon type powder mixers: 50#, 100#, 200#, 400#, and 2000#. Read jacketed ribbon mixer 600#. Broughton 2000# double arm powder mixer. Steam jacketed mixing kettles with agitators; stainless steel jacketed kettles; stainless steel storage and mixing tanks. Perry Equipment Corp., 1410 N. 6th St., Phila., 22, Pa.

For Sale: 4-vertical Evaporators, 8′ dia., 316—3″ dia. x 3′ 3″ and 4—15″ dia. x 3′ 3″ vertical steel tubes, each with salting out chambers; 4′ x 8′ steel Flaking or Cooling Roll; Union Bag Sewing Machine, 80500 DZ head, M.D.; Sperry 24″ Recessed Cast Iron Filter Press; Shriver 30″ plate & frame C-1 Filter Press; Sperry 30″ aluminum P & F Filter Press; Munson 2000 lb. Rotary Batch Mixer; 100 lb. jacketed Soap Crutcher; 3-Day No. 71 S/S Roball Sifters; Size 11, 23, 43 and 53 Rotex screens; Dopp 350, 650 gal. jacketed, open kettles; Jones Automatic "K" soap press; Empire State Para Block Press; Mikro No. 1 and No. 2 Pulverizer; 2 Wolf 1800 lb. Ribbon Blenders; 38—Aluminum storage tanks, 800, 600 and 250 gals.; Special—27 unused rectangular 200 gal. aluminum storage tanks at only $75 each plus $15 crating. Only a partial list. Send us your inquiries. Consolidated Products Co., Inc., 15-21 Park Row, New York 38, N. Y. Phone BArclay 7-0600.

Interested in Chemical Specialties? See page 178 for more complete details.

Mixer and Packaging Machine: Stokes & Smith package filler, Messinger mixer. Formerly used for insecticide powders. Set up together with extra hopper. Will sell separately. Excellent condition. For details write I. W. Lee, 3420 Yupon, Houston, Tex.

New Merck Chemical Index

The Merck Index of Chemicals and Drugs, sixth edition, published and distributed by Merck & Co., Rahway, N. J., has just been issued. It contains 1,167 pages, 6¼ x 9¼ inches, cloth binding, and is $7.50 for the regular edition. The thumb-index edition is $8.00.

This new and revised edition of the index, the first since 1940, carries more than 8,000 descriptions of individual substances, more than 2,000 structural formulas, and about 20,000 names of chemicals and drugs alphabetically arranged and cross-indexed. Like its predecessors this edition contains a large number of helpful tables.

New Petroleum Wax Series

Announcement of a new series of petroleum waxes to be marketed under the trade name, "Amorwax," was made recently by Pennotex Oil Corp., New York. Suggested uses include paste and liquid solvent floor waxes, as well as shoe and automobile polishes. The new series is said to be of light color, having a high melting point. They are claimed to be compatible in all proportions with vegetable and mineral waxes, including montan and ozokerite, and carbowaxes, cumarone indene resins and ethyl cellulose. Solvents for these waxes preferably should be of the chlorinated type, although petroleum solvents may be used where necessary. Slight solubility in lower alcohols is also said to be possessed by these compounds.

The "Amorwax 1300" series are specially developed synthetic compounds of unusual hardness and melting point. Some are light in color.

"Amorwaxes," prepared by a newly developed synthetic process, range from complete freedom from crystallization to semicrystalline structure. They all exhibit sharp fracture and may readily be powdered by usual means of equipment. Grades showing acid numbers of one or less may be considered chemically inert. Normally such compounds will show no reaction towards hot concentrated alkali solutions. They also exhibit water resistance both in the cold and at boiling temperatures.

Buys Amer. Coating Mills

The sale on April 1, of the manufacturing plants, business and inventories of its American Coating Mills Division to Robert Gair Co., New York, was announced jointly by George E. Dyke, Gair president, and J. P. Levis, chairman of the board of Owens-Illinois Glass Co., Toledo. The announcement was made following the signing recently of a contract approved by the boards of both firms for the sale.

Under the transaction, Robert Gair Co., manufacturers of paperboard, folding cartons and shipping containers, acquires paperboard mills at Elkhart, Ind., and Middletown, O:. and carton fabricating plants at Elkhart, Chicago, and Grand Rapids, Mich. In exchange, Owens-Illinois receives approximately 400,000 shares of Gair common stock and a substantial cash consideration.

The manufacturing operations of Owens-Illinois which are devoted to making corrugated boxes for the company's products will not be included in the transaction. The business of American Coating Mills will be operated as a separate division of Gair under the direction of R. L. Snideman, president of American Coating Mills.

Names N. Y. Aromatics

New York Aromatics Corp., New York, recently announced that it had been appointed sole agents in the United States for the Grasse, France, essential oil firm of Mero & Boyveau. The French firm specializes in natural flower essences such as rose, jasmin, geranium, neroli, lavender, absolutes, concretes, resinoids.

N. Y. NSSA Meeting

A special dinner meeting of members of the National Sanitary Supply Association from the New York area was held Feb. 19, at the Washington Square Inn, New York. Feature of the meeting was a talk on ways to reduce shipping costs presented by Leo Tessler of Merca Traffic Service, Bronx, N. Y. Thirty-five members were present. Samuel Newman of Creco Chemical Co., Long Island City, eastern regional vice-president of the N.S.S.A. presided.

Mr. Tessler explained that the three basic factors affecting the cost of transportation were: 1.) Method of classification; 2.) Method of shipping or routing; 3.) Packaging.

Index to ADVERTISERS

Tale Ends

LAST week, we bumped into a specialty soap manufacturer who was finding it difficult to fill orders from his regular trade. Plant was that busy. Then, we found out that the bird had a big government order which was making his factory bulge at the seams. But, most other people are re-introducing the word, "depression," into their current vocabularies. They ask, if it ain't a depression, then what is it?

* * *

For several months now, Lever has been reported in the industrial soap business, neither confirmed nor denied. Well, if taking an Army order for G.I. laundry soap for some 594,000 lbs, constitutes being in the industrial soap business, we would judge that they quite definitely are in. This was reported last month in official government contract awards and is something of an innovation for the Lever folks. That we are going to hear more of this in the near future, probably closer to the real industrial picture than G.I. soap, we have little doubt. In fact, a well-known mid-west industrial soaper would like to sell out to Lever and really put them into the business with both feet.

* * *

Solvay has been producing alkalies and other chemicals for many a year. And if we may judge from a series of recent institutional advertisements in Syracuse, N. Y. newspapers, location of one of their earliest plants, people who once start to work for Solvay never quit. You're practically a beginner with Solvay unless you've been there for 20 years. Six plant men, recently retired, whose photos appeared in one of the advertisements, had a total of 306 years of service with the company. All told, the advertising series produces an excellent atmosphere in the realm of Solvay labor relations. Swell idea!

* * *

In Milwaukee, the Mid West Soap Co. was recently revealed by the police of that city to be more interested in horses than soap. Not that they made their soap out of horses, for they made no soap. They made book instead. Their soap business was strictly of the soapless variety. And they are reputed to have made much more dough out of bookmaking than is normally made from soapmaking. But the proprietors ended up in the clink,—which should be at least some slight consolation to those soapers whose business has been so lousy during the past six months.

* * *

When the S/S "Gothic" which carried the then Princess Elizabeth to Kenya for a visit cut short by the death of King George, reached Mombasa, every inch of the ship was given a real spraying with insecticide. Anti-malaria squads preparing for the journey on to Ceylon went through the vessel from stem to stern with insect spray so that no mosquito or other insect had a chance to survive. Inasmuch as the job was done in Mombasa which is in Kenya, we'll gamble an odd shilling or two that the bug spray was well loaded with good old pyrethrum as well as DDT.

* * *

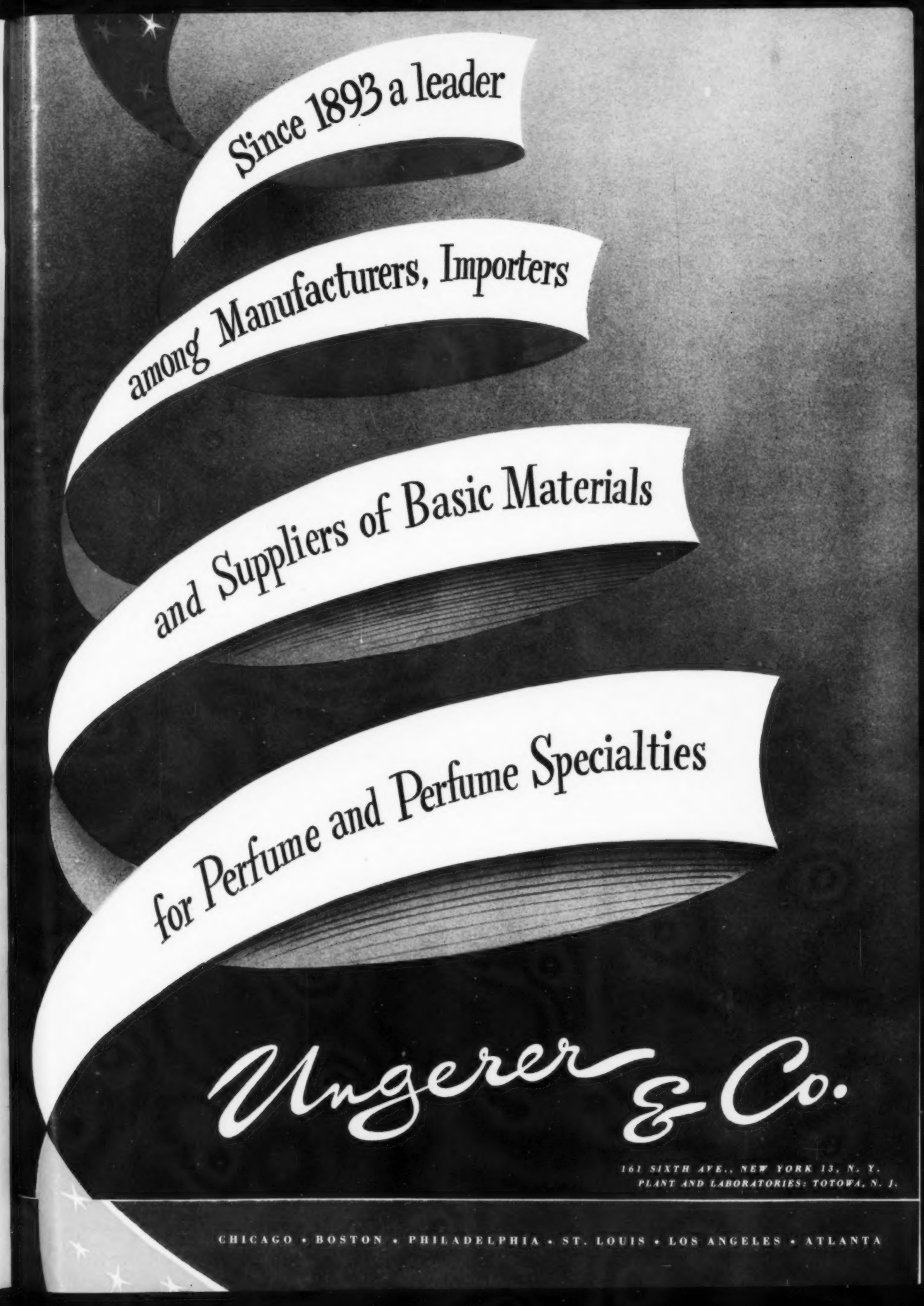
In a recent issue of the "Chicago Daily News," Isabel DuBois, who runs a column for the ladies on mushroom dumplings, cherry squnch, and chicken stew, gave a "recipe" for homemade soap. The aforementioned recipe called for 10 lbs. strained grease and 3 cans of lye (size or weight not mentioned). If these by chance happened to be 12 oz. cans, we have a hunch that the lye would suffice to saponify this quantity of fat. In fact, a quick calculation would indicate that enough free lye should be left over in the soap to saponify the user's hands as well. Oh, goody, goody,—homemade soap just like grandma used to make! But, goom-by hands, you Chicago dames.

* * *

Horrors! A terrible thing recently happened at the Waldorf in N. Y. A wine taster,—bless his temperamental soul,—sipped from a bright shining glass, drew back and frowned disapprovingly. Detergent! The glass had been washed with a detergent. Aghast, the maitre rushed this and other glasses to the kitchen for rewashing with soap. In the meantime, the highly agitated wine taster was calmed. He tried one of the soap-washed glasses and frowned again. This time, he tasted soap. But, remarked with sly and subtle humor, he preferred the wine with detergent. All of which we'll gamble is just so much malarkey,—but it does let the world know how fussy they are about their wines at the Waldorf.

* * *

Americans bathe too much, according to Dr. Donald M. Pillsbury, Chicago dermatologist. They live in fear of the germs on their skins when in fact there are twelve billion bacteria on everybody's skin right this minute and they are not doing anybody any harm,—and as soon as you wash them off, they come right back again. Well, doctor, all this may be very true. But, we pause to ask if you have ever ridden a crowded N. Y. subway train on Friday night in warm weather. If so, old pal, you should revamp your ideas on the subject of too much bathing. Maybe your friends bathe too much, but we assure you this is not true where we get to smell people.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